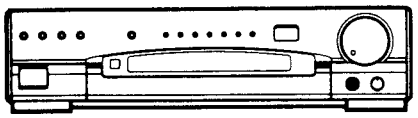
PIONEER®
The Art of Entertainment

Service Manual



ORDER NO.
ARP2402

TUNER CONTROL AMPLIFIER

CX-J500

CX-J500 HAS THE FOLLOWING :

Type	Power Requirement	Remarks
HE	AC 220 V–230 V, 240 V(switchable)*	
HEWZI	AC 220 V–230 V, 240 V(switchable)*	
HB	AC 220 V–230 V, 240 V(switchable)*	
SD	AC 110 V, 120 V–127 V, 220 V, 240 V(switchable)	

* Change the connection of the power transformer's primary wiring.

- **This manual is applicable to HE, HB and SD types.**
- **As to HB and SD types, refer to page 35.**
- **As to the other type(s), refer to applicable service manual(s).**
- **These products are systems components. Each of these products does not function properly when independent ; to avoid malfunctions, be sure to connect it to the prescribed system component(s), otherwise damage may result.**
- **These products' instructions are contained within the operating instructions manual of the related system component(s).**
- **The manual is packed with those component(s). These products' accessories etc. are packed with their related component(s).**
- **Ce manuel pour le service comprend les explications de réglage en français.**
- **Este manual de servicio trata del método ajuste escrito en español.**

CONTENTS

1. EXPLODED VIEWS AND PARTS LIST 2
2. PCB PARTS LIST 5
3. PANEL FACILITIES 8
4. SPECIFICATIONS 10
5. SCHEMATIC DIAGRAMS AND PCB CONNECTIONS DIAGRAMS 11
6. ADJUSTMENTS 29
6. REGLAGE 30
6. AJUSTE 31
7. FOR HB AND SD TYPES 35

PIONEER ELECTRONIC CORPORATION 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153, Japan
PIONEER ELECTRONICS SERVICE INC. P.O. Box 1760, Long Beach, California 90801 U.S.A.
PIONEER ELECTRONICS OF CANADA, INC. 505 Cochrane Drive, Markham, Ontario L3R 8E3 Canada
PIONEER ELECTRONIC [EUROPE] N.V. Haven 1087 Keetberglaan 1, 9120 Melsele, Belgium
PIONEER ELECTRONICS AUSTRALIA PTY. LTD. 178-184 Boundary Road, Braeside, Victoria 3195, Australia TEL: [03] 580-9911

© PIONEER ELECTRONIC CORPORATION 1992

FS JAN. 1992 Printed in Japan

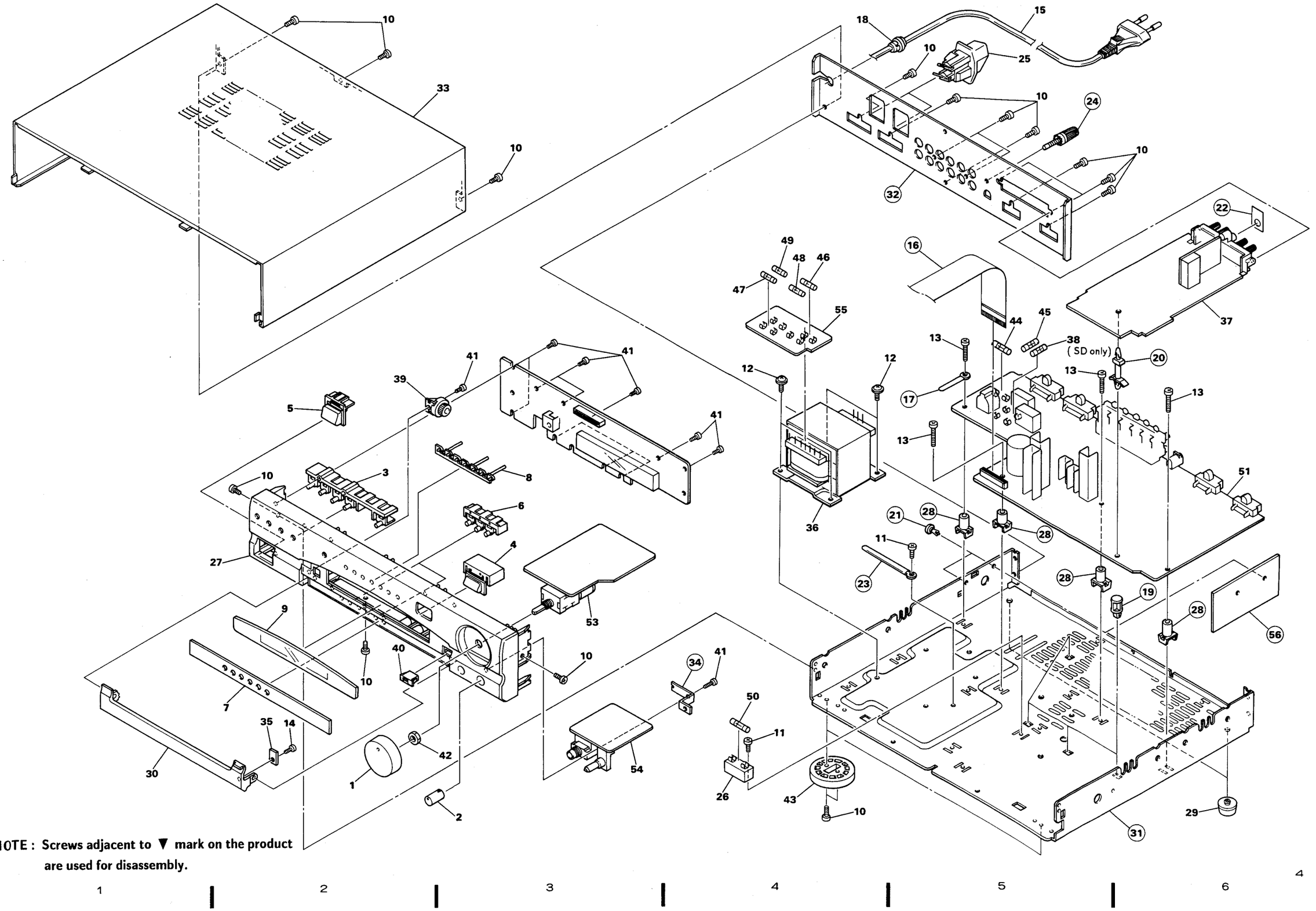
1. EXPLODED VIEWS AND PARTS LIST

NOTES:

- *The parts with an encircled number are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*

Mark	No.	Description	Parts No.
	1	VOL KNOB	AAB1259
	2	KNOB (SMALL)	AAB1270
	3	BAND BUTTON	AAD2100
	4	FUNCTION BUTTON	AAD2102
	5	POWER BUTTON	AAD2104
	6	TIMER BUTTON	AAD2105
	7	INTERNAL PANEL	AAK2221
	8	INDICATOR LENS	AAK2222
	9	PANEL	AAK2223
	10	SCREW	ABA−298
	11	SCREW (STEEL)	ABA1009
	12	SCREW (STEEL)	ABA1011
	13	SCREW	ABA1018
	14	SCREW (STEEL)	ABA1143
⚠	15	AC POWER CORD	ADG1019
	16	FFC	ADD1102
	17	BINDER	AEC−826
⚠	18	STRAIN RELIEF	AEC−882
	19	PCB SUPPORT	AEC1010
	20	PCB SPACER	AEC1100
	21	NYLON RIVET	AEC1160
	22	SPACER	AEC1236
	23	BINDER	AEP−215
	24	TERMINAL SCREW	AKE−031
⚠	25	AC SOCKET 1−P	AKP−508
⚠	26	FUSE HOLDER	AKR−038
	27	FRONT PANEL	AMB1915
	28	PCB MOLD	AMR1525
	29	LEG ASSY(S)	AMR1937
	30	SEALING DOOR ASSY	AMR2338
	31	CHASSIS	ANA1160
	32	REAR PANEL	ANC1809
	33	METAL BONNET	ANE1323
	34	BRACKET(JACK)	ANG1488
	35	MAGNET PLATE	ANG1558
⚠	36	POWER TRANSFORMER (T1)	ATT1178
	37	TUNER ASSEMBLY	AWE1230
⚠	38	FUSE (FU3 T1A/250V)(SD only)	AEK−508
	39	DUMPER ASSY	AXA1013
	40	MAGNET	AXX1016
	41	SCREW	BBZ26P080FMC
	42	NUT	NK90FUC
	43	FOOT ASSY(ABS)	RXA1448
⚠	44	FUSE(FU1 T2.5A)	AEK−512
⚠	45	FUSE(FU2 T1A)	AEK−508
⚠	46	FUSE(FU4 T5A)	AEK−515
⚠	47	FUSE(FU5 T5A)	AEK−515
⚠	48	FUSE(FU6 T1.6A)	AEK−510
⚠	49	FUSE(FU7 T1.6A)	AEK−510
⚠	50	FUSE(FU8 T2A)	AEK−511
◉	51	AF ASSEMBLY	AWZ3765
◉	52	DISPLAY ASSEMBLY	AWZ3769
◉	53	VR ASSEMBLY	AWZ3771
◉	54	MIC ASSEMBLY	AWZ3774
◉	55	FUSE ASSEMBLY	AWZ3975
	56	SHIELD ASSY	AWZ4117

EXPLODED VIEW



NOTE : Screws adjacent to ▼ mark on the product are used for disassembly.

2. PCB PARTS LIST

NOTES :

- *Part without part number cannot be supplied.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

Ex.1 *When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J = 5%, and K = 10%).*

560Ω 56 × 10¹ 561 ..... RD1/4PS 5 6 1 J
47kΩ 47 × 10³ 473 ..... RD1/4PS 4 7 3 J
0.5Ω 0R5 ..... RD2H 0 R 5 K
1Ω 010 ..... RD1P 0 1 0 K

Ex.2 *When there are 3 effective digits (such as in high precision metal film resistors).*

5.62kΩ 562 × 10¹ 5621 ..... RD1/4SR 5 6 2 1 F

Mark	No.	Description	Parts No.
LIST OF ASSEMBLIES			
		TUNER ASSEMBLY	AWE1230
◉		AF ASSEMBLY	AWZ3765
◉		DISPLAY ASSEMBLY	AWZ3769
◉		VOLUME ASSEMBLY	AWZ3771
◉		MIC ASSEMBLY	AWZ3774
◉		FUSE ASSEMBLY	AWZ3975
TUNER ASSEMBLY(AWE1230)			
SEMICONDUCTORS			
	IC901	PLL IC	LM7001
	IC902	AM/FM IC	LA1265S
	IC903	MPX IC	AN7470P
	Q901	N-FET	2SK246
	Q902	TRANSISTOR	2SC1740SLN
	Q903,904	TRANSISTOR	RN1203
	Q905-907	TRANSISTOR	RN2201
	Q908	TRANSISTOR	RN1203
	Q909	TRANSISTOR	2SC2668
	Q910-913	TRANSISTOR	2SC2458
	Q914	TRANSISTOR	2SA1048
	D901	DIODE	1SV156
	D902	DIODE	HSS104-02
	D903,904	DIODE	1SS85
	D905-912	DIODE	HSS104-02
COILS AND FILTERS			
	L901	AXIAL INDUCTOR	LAU2R2M
	L903	AXIAL INDUCTOR	LAU2R2M
	L904	AXIAL INDUCTOR	LAU010M
	L905	AXIAL INDUCTOR	LAU2R2M
	L907	COIL	ATE-079
	L908	AXIAL INDUCTOR	LAU2R2M
	F903	CERAMIC FILTER	ATF-119
	F904	CERAMIC FILTER	ATF1042
	F905	CERAMIC FILTER	ATF-107
	F906	FILTER	ATF1088
CAPACITORS			
	C901	ELECTR.CAPACITOR	CEAS330M16
	C902	CERAMIC CAPACITOR	CKDYF102Z50
	C903	CERAMIC CAPACITOR	CKPUYB101K50
	C904	CERAMIC CAPACITOR	CKPUYB102K50
	C905	AUDIO FILM CAPACITOR	CFTXA103J50
	C906	AUDIO FILM CAPACITOR	CFTXA224J50
	C907	CERAMIC CAPACITOR	CKPUYB102K50
	C909	CERAMIC CAPACITOR	CKDYF103Z50
	C910	CERAMIC CAPACITOR	CKPUYB101K50
	C911	CERAMIC CAPACITOR	CKPUYF103Z25
	C912	CERAMIC CAPACITOR	CCDCH150J50
	C913	CERAMIC CAPACITOR	CKDYF223Z50
	C914	CERAMIC CAPACITOR	CCDCH150J50
	C915	CERAMIC CAPACITOR	CKDYF223Z50
	C916	CERAMIC CAPACITOR	CKPUYF103Z25
	C919	CERAMIC CAPACITOR	CKDYF223Z50
	C922	CERAMIC CAPACITOR	CKDYF223Z50
	C923	CERAMIC CAPACITOR	CKPUYF223Z25
	C924	ELECTR.CAPACITOR	CEAS470M10
	C925	CERAMIC CAPACITOR	CKPUYF103Z25
	C926	ELECTR.CAPACITOR	CEAS330M16
	C927	CERAMIC CAPACITOR	CCDSL470J50
	C928	ELECTR.CAPACITOR	CEAS470M10
	C929	CERAMIC CAPACITOR	CKPUYF103Z25
	C930	ELECTR.CAPACITOR	CEAS330M16
	C931	CERAMIC CAPACITOR	CKPUYF223Z25
	C932-935	CERAMIC CAPACITOR	CKDYF223Z50
	C936	ELECTR.CAPACITOR	CEAS4R7M50
	C937	CERAMIC CAPACITOR	CKDYF223Z50
	C938	ELECTR.CAPACITOR	CEAS010M50
	C939	CERAMIC CAPACITOR	CCDSL271J50
	C940	CERAMIC CAPACITOR	CKDYB222K50
	C941	CERAMIC CAPACITOR	CKDYF473Z50
	C942	ELECTR.CAPACITOR	CEAS2R2M50
	C943	ELECTR.CAPACITOR	CEAS470M10

Mark	No.	Description	Parts No.
	C944	ELECTR.CAPACITOR	CEAS0R1M50
	C945	ELECTR.CAPACITOR	CEANP2R2M50
	C946	ELECTR.CAPACITOR	CEAS470M25
	C947	CERAMIC CAPACITOR	CKDYF473Z50
	C948	CAPACITOR	ACE1039
	C949	ELECTROLYTIC CAPACIT	CEAS1R5M50
	C950	ELECTR.CAPACITOR	CEAS3R3M50
	C951	ELECTR.CAPACITOR	CEAS470M10
	C952,953	CERAMIC CAPACITOR	CKDYB122K50
	C954	ELECTR.CAPACITOR	CEAS0R1M50
	C955	ELECTR.CAPACITOR	CEASR22M50
	C956	CERAMIC CAPACITOR	CKDYB122K50
	C957,958	ELECTR.CAPACITOR	CEAS2R2M50
	C959	CERAMIC CAPACITOR	CKPUYF223Z25
	C960	ELECTR.CAPACITOR	CEAS0R1M50
	C961,962	CERAMIC CAPACITOR	CKDYB272K50
	C963	ELECTR.CAPACITOR	CEAS2R2M50
	C964	CERAMIC CAPACITOR	CKPUYB101K50
	C965	CERAMIC CAPACITOR	CKPUYB102K50
RESISTORS			
	VR901	VR(10kΩ)	ACP1043
	VR902	VR(22kΩ)	ACP1044
	VR903	VR(4.7kΩ)	ACP1042
	Other Resistors		RD1/8PM□□□J
OTHERS			
	X901	CRYSTAL RESO. (7.2MHz)	ASS1042
	X902	CERAMIC RESO. (450kHz)	ATF1027
	2	SERIAL FE MODULE ASSY	AXQ1002
		AM RF TUNING BLOCK	AXX1012
		AM RF TUNING BLOCK	AXX1013
		ANTENNA TERMINAL (4P)	AKA1010
◉AF ASSEMBLY(AWZ3765)			
SEMICONDUCTORS			
	IC101,102	REGULATOR IC	NJM7812FA
	IC103	REGULATOR IC	NJM7912FA
	IC104	REGULATOR IC	NJM7805FA
	IC105	REGULATOR IC	NJM7905FA
	IC106	REGULATOR IC	NJM78M56FAS
	IC201	OP-AMP IC	RC4558DXP
	IC202	IC	UPC4570C
	IC203	OP-AMP IC	RC4558DXP
	IC204,205	LOGIC IC	TC4052BP
	IC206	LOGIC IC	XRU4066B
	IC207	LOGIC IC	TC4053BP
	IC301	SYSTEM MCU	PD5170B
	Q101,102	TRANSISTOR	2SA1306
	Q103	TRANSISTOR	2SD438
	Q104	TRANSISTOR	2SA1515
	Q105	TRANSISTOR	2SC3377
	Q107	TRANSISTOR	2SA1048
	Q108	TRANSISTOR	2SC2458
	Q109	TRANSISTOR	2SB560
	Q112	TRANSISTOR	2SD438

Mark	No.	Description	Parts No.
	Q113	TRANSISTOR	2SC2458
	Q201	TRANSISTOR	RN2203
	Q202	TRANSISTOR	2SA1048
	Q203,204	TRANSISTOR	RN2203
	Q205	TRANSISTOR	2SC2458
	Q301	TRANSISTOR	RN1203
	Q398	N-FET	2SK373
	Q399	TRANSISTOR	RN2203
	D101	DIODE	D3SBA20(A)
	D102	DIODE	RB152
	D103,104	DIODE	S5566
	D105	ZENER DIODE	RD33ESB
	D106	DIODE	S5566
	D109-111	DIODE	1SS252
	D112,113	ZENER DIODE	RD6.2ESB
	D114	ZENER DIODE	RD10ESB3
	D115,116	ZENER DIODE	RD6.2ESB
	D202,203	DIODE	1SS252
	D301	DIODE	1SS252
	D307	ZENER DIODE	RD6.2ESB
	D308	DIODE	1SS252
	D399	DIODE	1SS252
RELAYS			
	RY101	RELAY	ASR1036
	RY102	RELAY	ASR1032
FILTERS			
	L101	FILTER	ATF-163
	L301	AXIAL INDUCTOR	LAU220K
CAPACITORS			
	C101	CKA (0.01/AC400V)	ACG1003
	C102,103	POLYESTER CAPACITOR	CQMXA103J100
	C104	ELECTROLYTIC CAPACIT	ACH1211
	C105	ELECTROLYTIC CAPACIT	CEHAQ102M35
	C106	ELECTR.CAPACITOR	CEAS222M16
	C107	ELECTR.CAPACITOR	CEAS102M16
	C108	ELECTR.CAPACITOR	CEHAQ100M50
	C109	ELECTROLYTIC CAPACIT	CEHAQ470M25
	C110	ELECTR.CAPACITOR	CEHAQ100M50
	C111	ELECTROLYTIC CAPACIT	CEHAQ470M25
	C112	ELECTR.CAPACITOR	CEHAQ100M50
	C113	ELECTROLYTIC CAPACIT	CEHAQ470M25
	C114	ELECTR.CAPACITOR	CEHAQ100M50
	C115	ELECTROLYTIC CAPACIT	CEHAQ470M16
	C116	ELECTROLYTIC CAPACIT	CEHAQ100M50
	C117	ELECTROLYTIC CAPACIT	CEHAQ470M16
	C118	ELECTROLYTIC CAPACIT	CEAS102M50
	C119	ELECTROLYTIC CAPACIT	CEHAQ331M50
	C120	ELECTROLYTIC CAPACIT	CEAS470M50
	C121	ELECTR.CAPACITOR	CEAS470M50
	C122	ELECTROLYTIC CAPACIT	CEHAQ470M10
	C123	ELECTR.CAPACITOR	CEAS470M50
	C217,218	ELECTR.CAPACITOR	CEAS2R2M50
	C219,220	CERAMIC CAPACITOR	CKPUYB101K50
	C224	ELECTR.CAPACITOR	CEAS100M25

Mark	No.	Description	Parts No.
	C225,226	ELECTR.CAPACITOR	CEAS470M10
	C231,232	CERAMIC CAPACITOR	CKPUYB101K50
	C235,236	CERAMIC CAPACITOR	CKDYB562K50
	C237,238	CERAMIC CAPACITOR	CKCYB152K50
	C239	ELECTR.CAPACITOR	CEAS3R3M50
	C240	ELECTROLYTIC CAPACIT	CEAS3R3M50
	C241,242	ELECTR.CAPACITOR	CEAS470M10
	C243,244	ELECTR.CAPACITOR	CEAS100M25
	C249,250	ELECTR.CAPACITOR	CEAS100M25
	C257	CERAMIC CAPACITOR	CKCYX103M25
	C301	CERAMIC CAPACITOR	CKCYX473M25
	C302	CERAMIC CAPACITOR	CKCYF473Z50
	C303	ELECTR.CAPACITOR	CEAS470M16
	C304	CERAMIC CAPACITOR	CKCYX473M25
	C305	ELECTR.CAPACITOR	CEAS010M50
	C306, 307	CERAMIC CAPACITOR	CKCYB102K50
RESISTORS			
	R102	METAL OXIDE RESISTOR	RS1LMF102J
	R104	METAL OXIDE RESISTOR	RS1LMF102J
	R106	METAL OXIDE RESISTOR	RS1LMF562J
	R107	FUSLIBLE RESISTOR	RFA1/4PL4R7J
	R116	METAL OXIDE RESISTOR	RS3LMF151J
	R117	METAL OXIDE RESISTOR	RS3LMF181J
	R119,120	CARBON FILM RESISTOR	RD1/4PMF470J
	R121−124	CARBON FILM RESISTOR	RD1/4PM100J
	R127	METAL OXIDE RESISTOR	RS1LMF180J
	R245,246	CARBON FILM RESISTOR	RD1/4PM820J
	R305	RESISTOR ARRAY (56kΩ)	RA5T563J
	R312	RESISTOR ARRAY (56kΩ)	RA5T563J
	R345	RESISTOR ARRAY (56kΩ)	RA5T563J
	Other Resistors		RD1/8PM□□□J
OTHERS			
	X301	CERAMIC RESO. (4MHz)	ASS1025
	CN2	CONNECTOR(15P)	KPE15
	CN3	CONNECTOR(13P)	KPE13
	CN5	SOCKET(27P)	AKP1099
	CN6	SOCKET(10P)	AKP1073
	CN7	SOCKET(9P)	AKP1072
	CN21	CONNECTOR(4P)	KPE4
		JACK	AKN−203
		PIN JACK(6P)	AKB1121
		PIN JACK(6P)	AKB1129
		SCREW	BBZ30P080FZK
		SOCKET(15P)	AKP1049

◉DISPLAY ASSEMBLY(AWZ3769)

Mark	No.	Description	Parts No.
SEMICONDUCTORS			
	IC701	LOGIC IC	SN74LS42N
	IC702	CONTROL MCU	PDG075A
	Q701	TRANSISTOR	XDC143ES
	Q702	TRANSISTOR	2SC2458
	D701	DIODE	1SS252
	D702−708	LED(RED)	AEL1108
	D709−711	DIODE	1SS252
	D712	ZENER DIODE	RD6.2ESB
	D713−721	DIODE	1SS252
SWITCHES			
	S701−716	SWITCH	ASG1034
		SURROUND MODE, FUNC, STATION MEMORY, LOCAL/DX, SET, WAKE UP, REC, CLOCK ADJ, AUDITION, CENTER MODE, DELAY TIME, POWER, BAND, FREQ/ST, DOWN, UP	
FILTER			
	L701	AXIAL INDUCTOR	LAU220K
CAPACITORS			
	C702	ELECTROLYTIC CAPACIT	CEJA4R7M35
	C703	CERAMIC CAPACITOR	CKCYF223Z50
	C704	CERAMIC CAPACITOR	CKPUYF473Z16
	C705	ELECTR.CAPACITOR	CEJA010M50
	C706	ELECTR.CAPACITOR	CEAS2R2M50
	C707	CERAMIC CAPACITOR	CKCYB102K50
	C708	ELECTR.CAPACITOR	CEJA470M10
	C709	CERAMIC CAPACITOR	CKCYX473M25
	C710	CEA (47000/5.5V)	ACH1037
	C711	ELECTR.CAPACITOR	CEJA470M10
	C712	ELECTR.CAPACITOR	CEAS4R7M50
	C713	CERAMIC CAPACITOR	CKPUYF473Z16
	C715	ELECTR.CAPACITOR	CEAS471M10
	C716	CERAMIC CAPACITOR	CKDYB472K50
RESISTORS			
	R734	RESISTOR ARRAY (47kΩ)	RA8S473J
	R745	RESISTOR ARRAY (47kΩ)	RA8S473J
	R746	RESISTOR ARRAY (47kΩ)	RA11S473J
	Other Resistors		RD1/8PM□□□J
OTHERS			
	V701	FL TUBE	AAV1138
	X702	CRYSTAL RESO. (8.00MHz)	ASS1015
	CN4	SOCKET(27P)	AKP1099
		REMOTE RECEIVER UNIT	AXX1010

◉VOLUME ASSEMBLY(AWZ3771)

Mark	No.	Description	Parts No.
SEMICONDUCTORS			
	IC1601	MECHANISM DRIVER IC	TA7291S
	IC1602	IC	UPC4570C
	Q1601,1602	TRANSISTOR	2SC2878
	Q1605	TRANSISTOR	RN2203
FILTER			
	L1601	AXIAL INDUCTOR	LAU221K
CAPACITORS			
	C1601−1604	ELECTR.CAPACITOR	CEAS2R2M50
	C1605,1606	ELECTR.CAPACITOR	CEAS100M25
	C1607,1608	ELECTR.CAPACITOR	CEAS101M16
	C1609,1610	CERAMIC CAPACITOR	CKCYX104M25
	C1627	CERAMIC CAPACITOR	CKCYX473M25
	C1629,1630	CERAMIC CAPACITOR	CKCYB331K50
	C1631	ELECTR.CAPACITOR	CEAS101M16

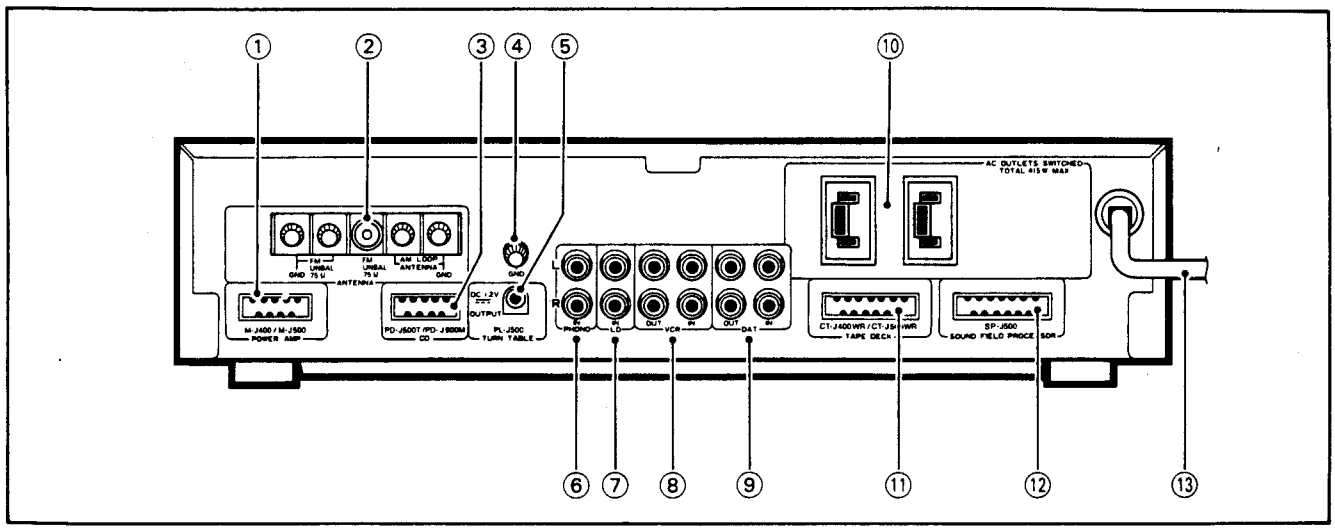
Mark	No.	Description	Parts No.
RESISTORS			
	VR1601	VARIABLE RESISTOR	ACX1064
	R1613	CARBON FILM RESISTOR	RD1/4PM121J
	R1614	CARBON FILM RESISTOR	RD1/4PM121J
	Other Resistors		RD1/8PM□□□J
◉MIC ASSEMBLY(AWZ3774)			
SEMICONDUCTOR			
	IC401	OP−AMP IC	RC4558DXP
CAPACITORS			
	C401	CERAMIC CAPACITOR	CKCYB332K50
	C402	ELECTROLYTIC CAPACIT	CEJA100M25
	C403	CERAMIC CAPACITOR	CKCYB331K50
	C404,405	ELECTR.CAPACITOR	CEAS010M50
	C406	ELECTROLYTIC CAPACIT	CEJA100M25
	C407,408	ELECTR.CAPACITOR	CEAS470M25
RESISTORS			
	VR401	VARIABLE(10K−X1)	ACS1025
	Other Resistors		RD1/8PM□□□J
OTHERS			
	JACK		AKN1017

◉FUSE ASSEMBLY(AWZ3975)

FUSE assembly has no service part.

3. PANEL FACILITIES

REAR PANEL FACILITIES



① POWER AMP jack
Connect the power amplifier (M-J400/M-J500) cable here.

② FM/AM ANTENNA terminals
Antennas must be connected to these terminals: otherwise you will not be able to receive stations. See page 11 for details on ANTENNA CONNECTIONS.

③ CD jack
Connect the compact disc player (PD-J500T/PD-J900M) cable here.

④ Ground terminal (GND)
Connect the ground lead of the turntable here (except for PL-J500).

⑤ TURNTABLE (DC 12 V OUTPUT) jack
This jack supplies power to the turntable PL-J500.

⑥ PHONO input jacks
Connect the output cord of the turntable to these jacks.

⑦ LD input jacks
Connect to the output jacks of the LD player.

⑧ VCR jacks
IN : Connect to the output jacks of VCR.
OUT : Connect to the input jacks of VCR.

⑨ DAT jacks
IN : Connect to the analog audio output jacks of the digital audio tape deck.
OUT : Connect to the analog audio input jacks of the digital audio tape deck.

⑩ AC OUTLETS (SWITCHED TOTAL 415 W MAX)
Power supplied through this outlet is turned on and off by the tuner control amplifier's POWER switch. Total electrical power consumption of connected equipment should not exceed 415 W.
PD-J500T or PD-J900M CD player power cords, and the M-J400/M-J500 power amplifier cords can be connected.

NOTE:
Do not connect appliances with high power consumption such as heaters, irons, or television sets to the AC OUTLET in order to avoid overheating or fire risk.
This can cause the amplifier to malfunction.

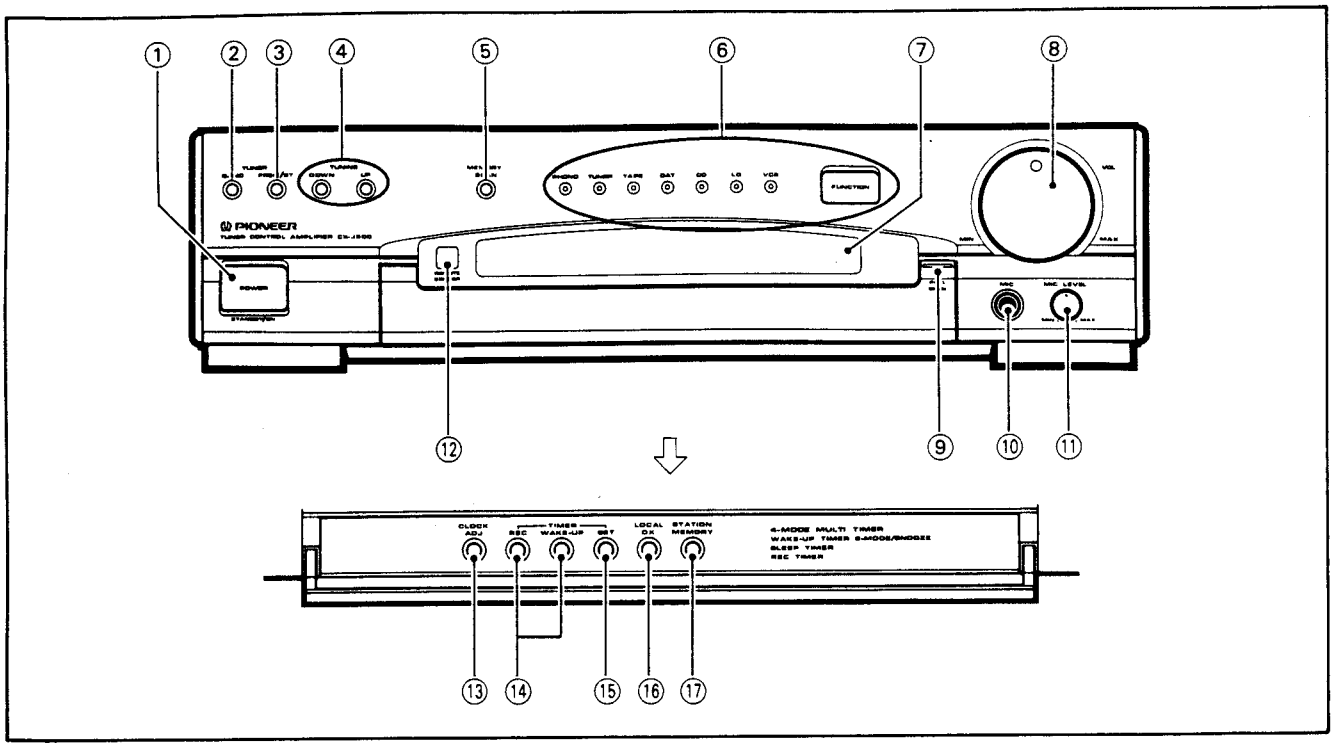
CAUTION:
DO NOT CONNECT TV SET OR MONITOR.

⑪ TAPE DECK jack
Connect the cassette deck (CT-J400WR/CT-J500WR) cable here.

⑫ SOUND FIELD PROCESSOR jack
Connect the sound field processor (SP-J500) cable here.

⑬ Power cord
Connect this to the AC wall socket.

FRONT PANEL FACILITIES



① POWER STANDBY/ON switch
This is the switch for electric power.
ON ..... When set to the ON position, power is supplied and the unit becomes operational.
STANDBY .. When set to the STANDBY position, the main power flow is cut and the unit is no longer fully operational. A minute flow of power feeds the unit to maintain operation readiness.
When only the time is indicated in the display section, the unit is in STANDBY.

② BAND selector button
Each time this button is pressed, FM, MW or LW (except for the multi-voltage model) reception is selected in order.

③ FREQ/ST (Frequency/Station) button
Use to switch between the Frequency mode and the Station Call mode.

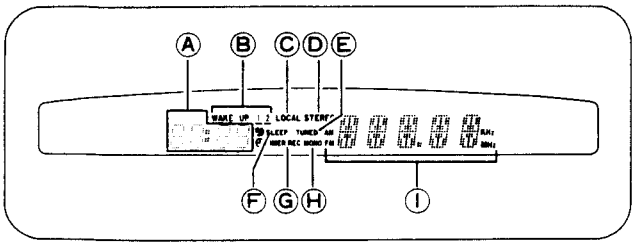
④ TUNING (UP, DOWN) buttons
[During tuning]
- When in the Frequency mode, use to raise and lower the reception frequency.
- When in the Station mode, use to raise and lower the station number.

[During time and timer setting]
Used for adjusting the clock, timer settings and its relayted adjustments.

⑤ MEMORY SCAN button
Press this button to scan programs on the preset stations automatically for 7 seconds each. If you wish to continue listening to the station currently being scanned, press this button again to lock the tuning to the station. This will cancel the preset scan function and return you to normal reception.

⑥ FUNCTION button/indicators
Each time you press the FUNCTION button, the amplifier function changes. The selected function's indicator lights.
[PHONO]
Select to play records on a turntable connected to the PHONO input jacks.
[TUNER]
Select to listen to radio broadcast.
[TAPE]
Select to listen to cassette tape.
[DAT]
Select to listen a DAT playing on a digital audio tape deck connected to the DAT jacks.
[CD]
Select to listen to compact disc.
[LD]
Select to play an LD on a video disc player connected to the LD input jacks.
[VCR]
Select to play a tape on a video cassette recorder connected to the VCR jacks.

⑦ Display section



Ⓐ Time/channel indicator
Normally indicates the current time. The current time is shown when the display is in the frequency mode; the channel number is shown when the display is in the station mode.
Ⓑ WAKE UP timer indicator
Displays the selected wake up timer.
ⓒ LOCAL indicator
Lights when the LOCAL/DX button ⑯ is set to ON.
Ⓓ STEREO indicator
Lights when an FM stereo broadcast is received (FM MONO button on the remote control unit set to OFF).
Ⓔ TUNED indicator
Lights when a broadcast is received and tuned in well.
Ⓕ SLEEP indicator
Indicates that the sleep timer is activated.
Ⓖ REC timer indicator
Displays the timer's setting condition.
Ⓗ MONO indicator
Lights when the FM MONO button on the remote control unit is set to ON. When this indicator is lit, FM stereo broadcasts are reproduced monaurally.
Ⓘ Frequency display
Shows received broadcast frequency. Also gives scrolling display of main function status.
FM and MHz light: FM reception.
AM and kHz light: MW or LW (except for the multi-voltage model) reception.

⑧ VOL (VOLUME) control

⑨ Open the hinged panel door with your finger.

⑩ MIC (microphone) jack
This is a standard jack for connecting a microphone.

⑪ MIC LEVEL control
Used for adjusting the volume of microphone.

⑫ REMOTE SENSOR

⑬ CLOCK ADJ button
Used for starting the clock adjustment.

⑭ Timer selector buttons
[WAKE-UP 1, 2]
Used for timer playback setting.
[REC]
Used for timer recording setting.

⑮ SET button
Used for current time, timer playback, and timer recording setting.

⑯ LOCAL/DX button (when receiving FM broadcasts)
Use this if the broadcast signal is too strong, causing noise and distortion. The attenuator reduces the strength of the signal, reducing noise and distortion.

⑰ STATION MEMORY button
Used to memorizing stations.

4. SPECIFICATIONS

FM Tuner Section
Frequency range ..... 87.5 MHz to 108 MHz
Usable Sensitivity ..... Mono: 12.8 dBf, IHF (1.2 μV/75 Ω)
Sensitivity (DIN) ..... Mono S/N 26 dB: 1 μV/75 Ω
Stereo S/N 46 dB: 50 μV/75 Ω
Signal-to-Noise Ratio (IHF, 85 dBf Input) ..... Mono: 77 dB
Signal-to-Noise Ratio (DIN) ..... Mono: 66 dB
Stereo: 60 dB
Distortion ..... Stereo: 0.5% (1 kHz)
Antenna Input ..... 75 Ω unbalanced

MW (AM) Tuner Section
Frequency range
9 kHz step ..... 531 kHz to 1,602 kHz
10 kHz step ..... 530 kHz to 1,700 kHz
Sensitivity (IHF, Loop antenna) ..... 350 μV/m

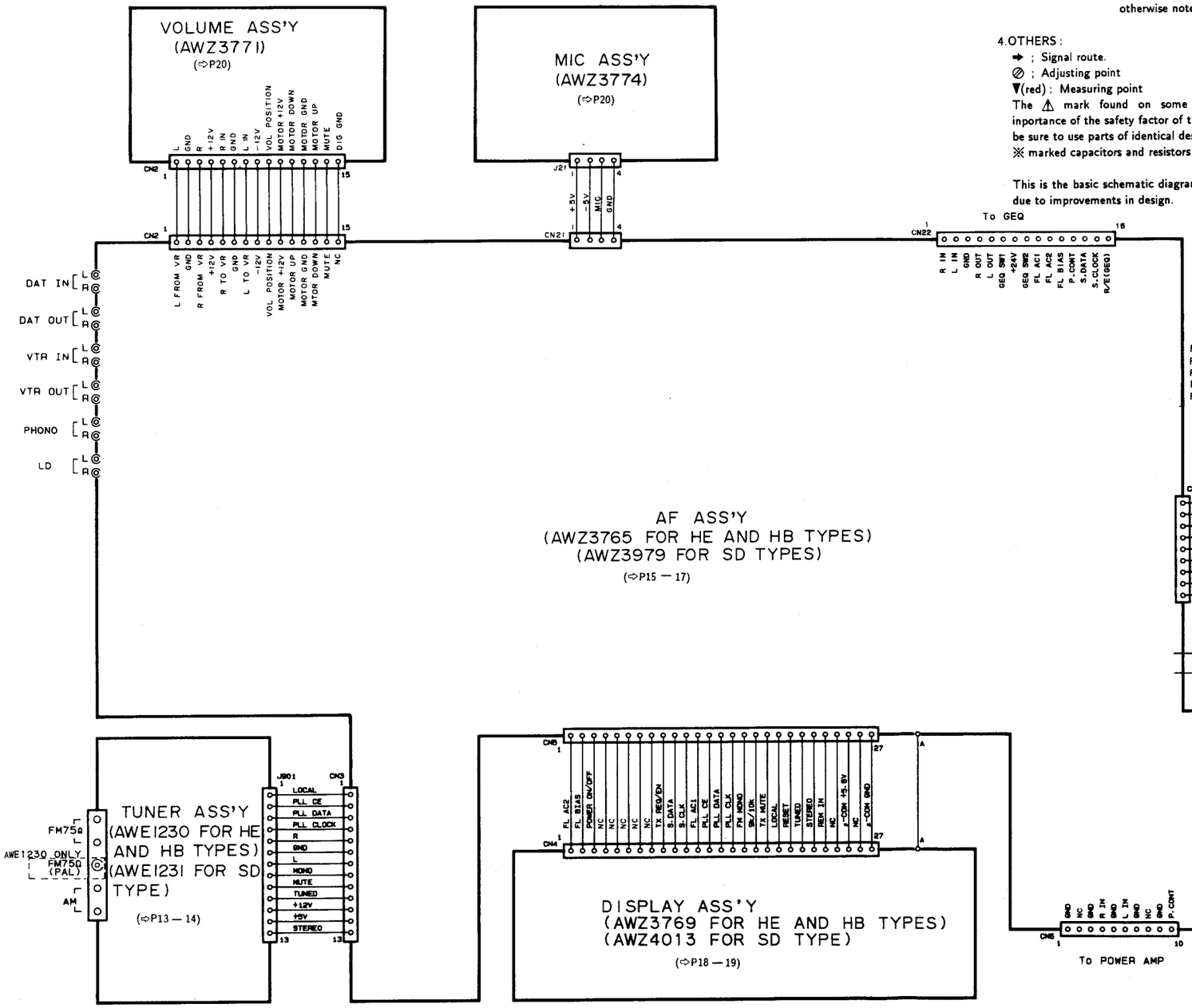
LW (AM) Tuner Section
(For LW-equipped models only)
Frequency range ..... 153 kHz to 281 kHz
Sensitivity (IHF, Loop antenna) ..... 1,500 μV/m

Furnished Parts
FM T-type Antenna 1
AM Loop Antenna 1

Power Supply/Miscellaneous
Power requirements
U.K. model ..... a.c. 240 Volts~, 50/60 Hz
European model ..... a.c. 220 — 230 Volts~, 50/60 Hz
Multi-voltage model ..... AC 110 V/120 — 127 V/220 V/240 V (switchable), 50/60 Hz
Power consumption
U.K. and European models ..... 40 W
Multi-voltage model ..... 50 W
AC outlets switched (x 2) ..... 415 W
Dimensions ..... 360 (W) x 345 (D) x 90.5 (H) mm
Weight ..... 4.5 kg

5. SCHEMATIC DIAGRAMS AND PCB CONNECTIONS DIAGRAMS

OVERALL WIRING DIAGRAM



1.RESISTORS :
Indicated in Ω, 1/4W, 1/6W and 1/8W, ±5% tolerance unless otherwise noted k ; kΩ, M ; MΩ, (F) ; ±1%, (G) ; ±2%, (K) ; ± 10%, (M) ; ±20% tolerance.

2.CAPACITORS :
Indicated in capacity (μF)/voltage(V) unless otherwise noted p ; pF.
Indication without voltage is 50V except electrolytic capacitor.

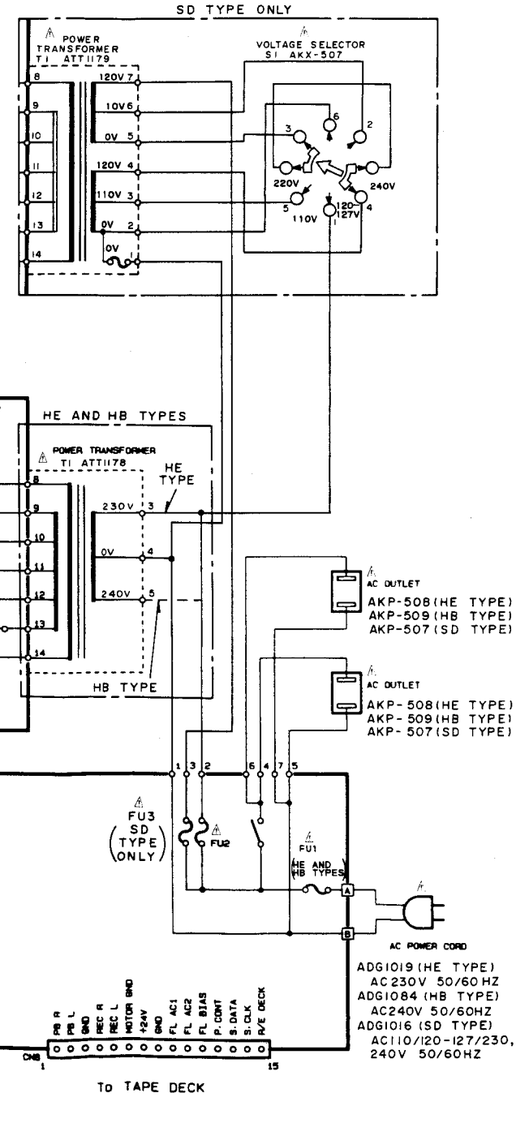
3.VOLTAGE, CURRENT :
▭ ; DC voltage (V) at no input signal unless otherwise noted.
Value in ( ) is DC voltage at rated power.
⇦mA or ←mA ; DC current at no input signal unless otherwise noted.

4.OTHERS :
➡ ; Signal route.
⊘ ; Adjusting point
▼(red) : Measuring point
The ⚠ mark found on some component parts indicates the inportance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
※ marked capacitors and resistors have parts numbers.

This is the basic schematic diagram, but the actual circuit may vary due to improvements in design.

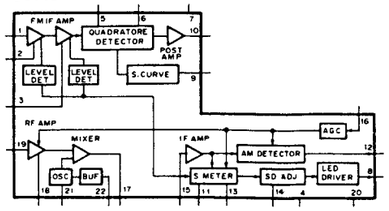
5. SWITCHES : (The underlined indicates the switch position)
DISPLAY ASSEMBLY

S701	SURROUND MODE
S702	FUNC
S703	STATION MEMORY
S704	LOCAL/DX
S705	SET
S706	WAKE UP
S707	REC
S708	CLOCK ADJ.
S709	AUDITION
S710	CENTER MODE
S711	DELAY TIME
S712	POWER
S713	BAND
S714	FREQ/ST
S715	DOWN
S716	UP



FU1 :AEK-512 (T2.5A)
FU2,3 :AEK-508 (T1A)
FU4,5 :AEK-515 (T5A)
FU6,7 :AEK-510 (T1.6A)
FU8 :AEK-511 (T2A)

IC902 LA1265S

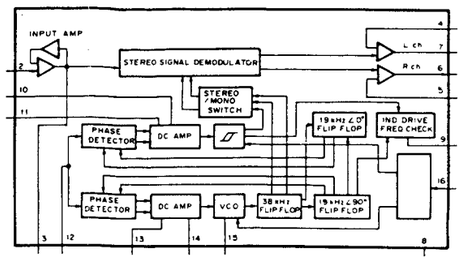


IC902 LA1265S

Pin No.	Voltage	Pin No.	Voltage	Pin No.	Voltage
1	2.3	10	2.8	17	0
2	2.3	11	1.5		12.0(AM)
3	2.3	12	1.5	18	0
4	0	13	1.4(MAX)		2.0(AM)
5	12.0	14	1.4(MAX)	19	0
6	12.0		0(AM)		2.0(AM)
7	12.0	15	2.3	20	3.8
8	0(T)		1.1(AM)	21	3.8
	5.1(D)	16	1.4	22	2.8
9	3.8				1.5(AM)

NOTE: (T): TUNE IND. ON; (D): TUNE IND. OFF.

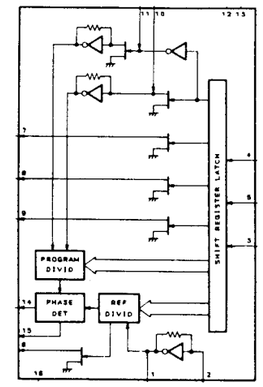
IC903 AN7470P



IC903 AN7470P

Pin No.	Voltage	Pin No.	Voltage	Pin No.	Voltage
1	11.2	9	4.9	15	3.2
2	2.6		0.6	16	0
3	6.1		(STEREO)		11.4
4	8.9	10	2.6		(AM)
5	8.9	11	2.6		4.0
6	3.9	12	2.6		(MONO)
7	3.9	13	2.6		
8	0	14	2.6		

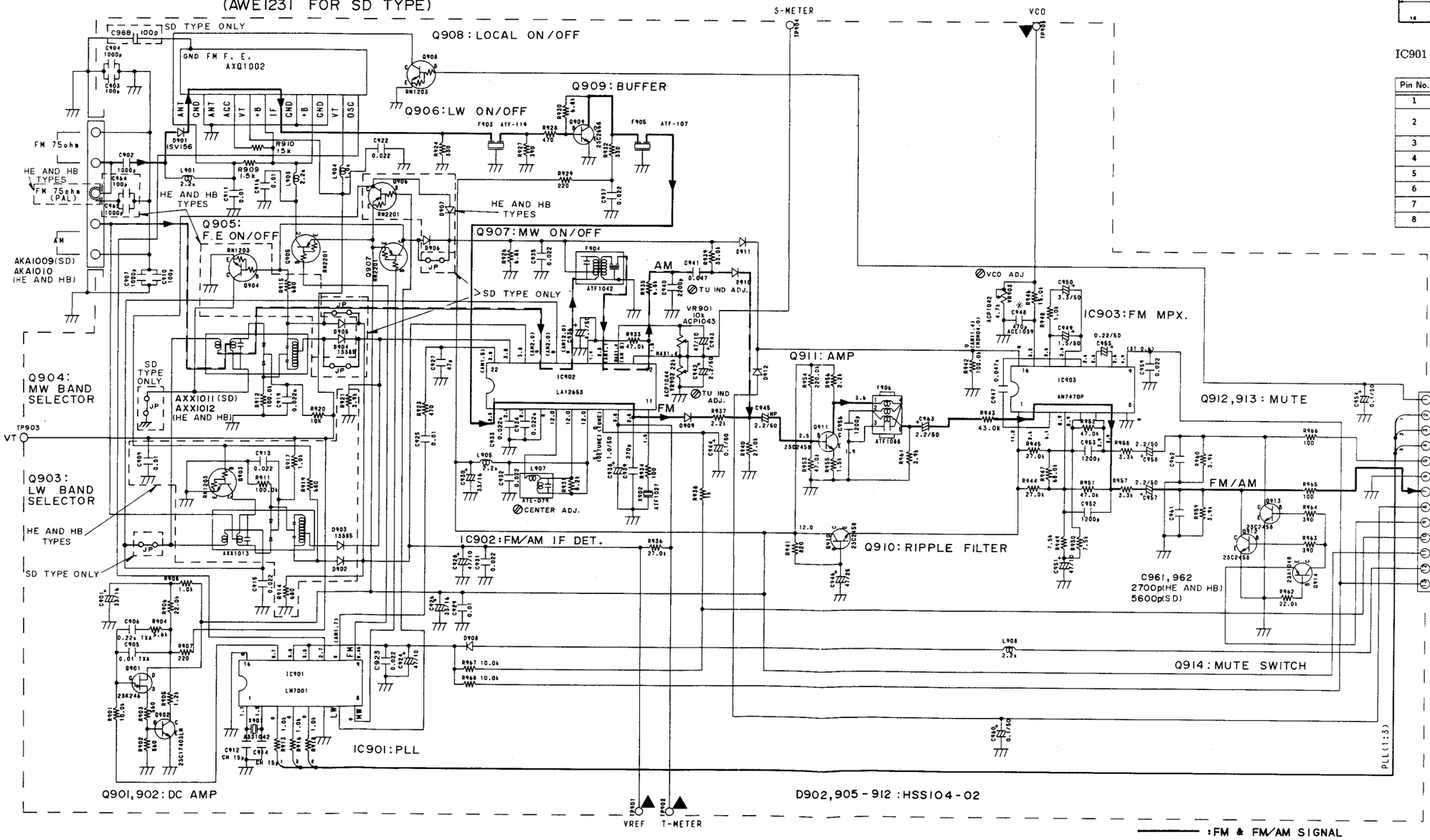
IC901 LM7001



IC901 LM7001

Pin No.	Voltage	Pin No.	Voltage
1	1.1	9	0.46
2	1.5	10	0 1.7(AM)
3	0	11	2.7
4	0	12	5.0
5	0	13	5.0
6	GND	14	0.7
7	—	15	—
8	0	16	0

TUNER ASS'Y (AWEI230 FOR HE AND HB TYPES)
(AWEI231 FOR SD TYPE)



AF AND FUSE ASSY

AF ASS'Y
(AWZ3765 FOR HE AND HB TYPES)
(AWZ3979 FOR SD TYPE)

TO TUNER ASS'Y CN901 (To page 14)
LOCAL, PLL CE, PLL DATA, PLL CLOCK, R, GND, L, MONO, MUTE, TUNED, +12V, +5V, STEREO

CN3 KPE13

TO CLD
CN7 AKP1072
L, GND, R, NC, S.DATA, S.CLOCK, Y/E(CLD), +C, NC

TO DECK
PB R, PB L, GND, REC R, REC L, MOTOR GND, +24V, GND, FL AC1, FL AC2, FL BIAS, P.CONT

J(1:9)

PHONO(RIAA) AMP

IC202 UPC4570C

IC204, IC205: INPUT MODE SELECTOR

IC201 : AMP

IC203 : MIXER

IC201 RC4558DXP

IC203 RC4558DXP

0dB

MIC MIX

FUNCTION SELECTION

	INH	A	B
PHONO	L	L	L
CLD	L	H	L
TUNER	L	L	H
TAPE	L	H	H
LD	H	L	H
VTR	H	H	H
DAT	H	L	L

A: Pin6 of IC301
B: Pin7 of IC301
INH: Pin8 of IC301

PJ201 AKB1121

PHONO 150mV
LD 300mV
VTR IN 150mV
DAT IN 300mV
-6dB

IC4052BP

IC204

IC205

Q201: INPUT MODE SELECTOR CONTROL

IC206: REC OUT MUTE

IC206 XRU40668

Q202 2SA1048

Q203 RN2203

Q204 RN2201

Q205 2SC2458

Q201 RN2203

Q202 - Q205: REC OUT MUTE CONTROL

VTR REC OUT DAT

PJ202 AKB1129

FROM MIC ASS'Y J21 (To page 20)
KPE4 CN21
+5V, -5V, MIC, GND

D103.106.109-111.202.203.301.308.399:1SS252

FL BIAS -31V

IC106 MM78M56FA5

DIG +5.6

IC106, Q109: REGULATOR

SD TYPE ONLY

POWER TRANSFORMER T1 ATT1179

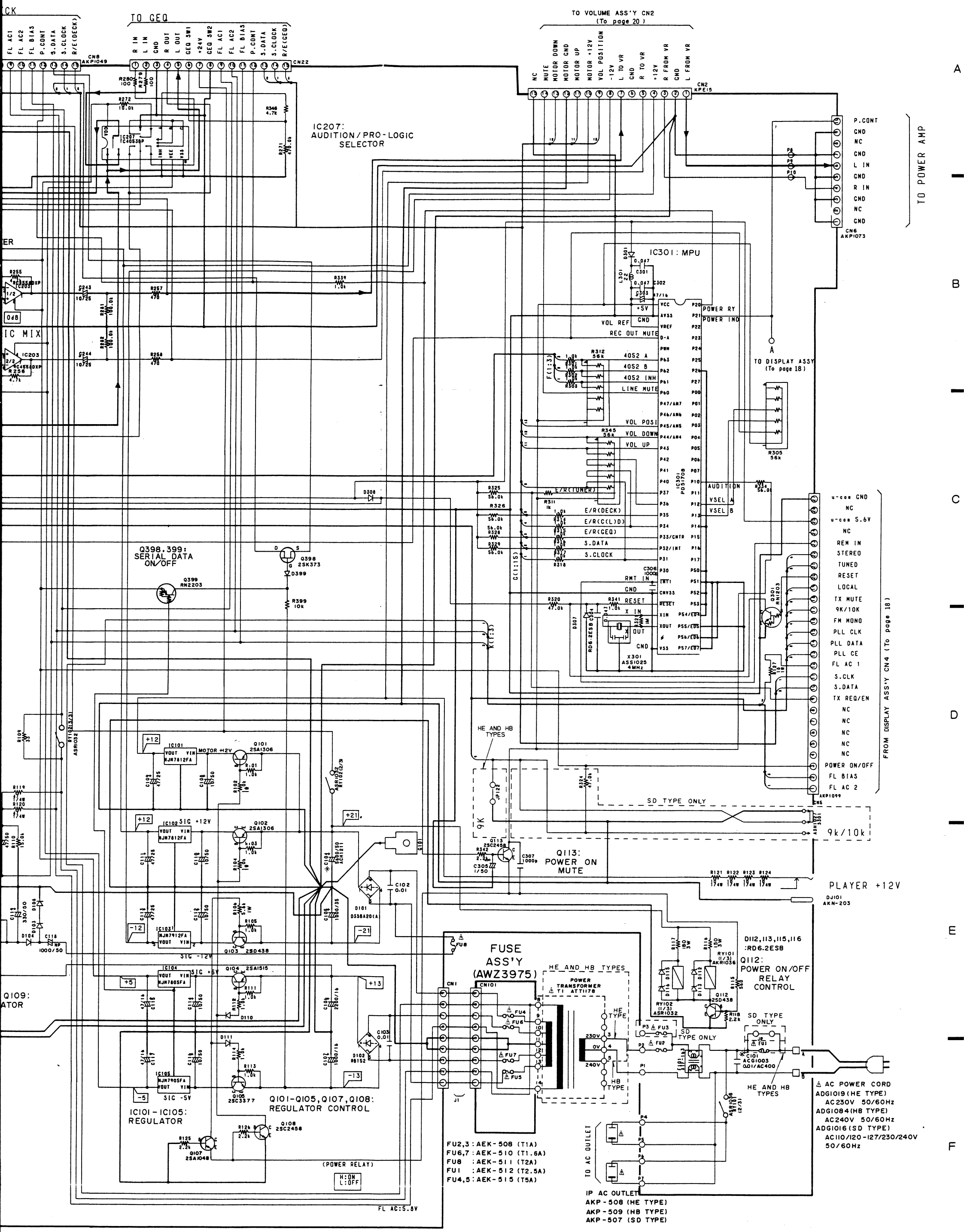
VOLTAGE SELECTOR S1 AKX-507

120V, 110V, 0V

FUSE ASS'Y

AF ASS'Y

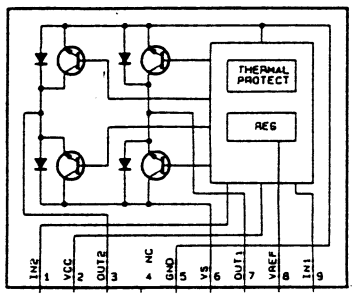
P1, P2, P3

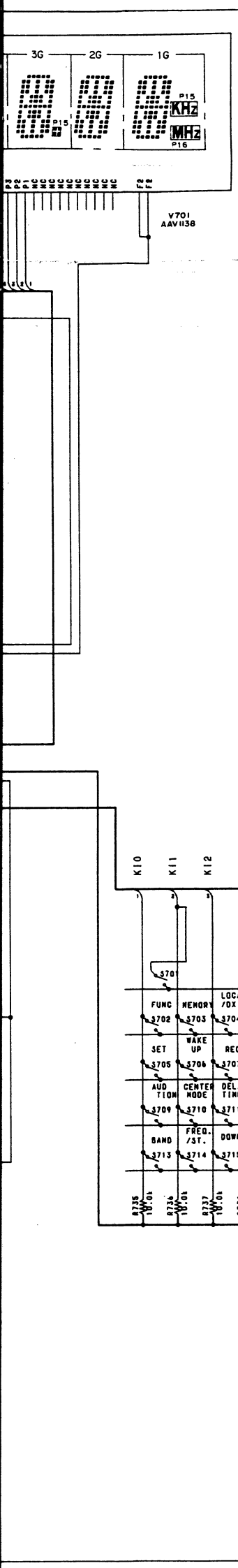

TO GEQ
R IN
L IN
GND
R OUT
L OUT
GEQ SW1
+24V
GEQ SW2
FL AC1
FL AC2
FL BIAS
P.CONT
S.DATA
S.CLOCK
R/E(GEQ)
CN22
CN8 AKP1049
R/E(DECK)
TO VOLUME ASS'Y CN2
(To page 20)
NC
MUTE
MOTOR DOWN
MOTOR GND
MOTOR UP
MOTOR +12V
VOL POSITION
-12V
L TO VR
GND
R TO VR
+12V
R FROM VR
GND
L FROM VR
CN2 KPE15
IC207:
AUDITION / PRO-LOGIC
SELECTOR
IC207
TC40S38P
VDD
INH
VEE
VSS
R272 10.0k
R280 100
R279 100
R346 4.7k
R271 470.0k
R255 47k
R254 56k
IC203
R256 4.7k
0dB
C243 10/25
R257 470
R339 1.0k
C244 10/25
R258 470
R241 100.0k
R242 100.0k
IC MIX
IC301 : MPU
D301
0.047
C301
L301 22
C302 0.047
C303 47/16
+5V
GND
VOL REF
REC OUT MUTE
VCC
AVSS
VREF
D-A
PWM
P20
P21
P22
P23
P24
P25
P26
P27
P00
P01
P02
P03
P04
P05
P06
P07
P10
P11
P12
P13
P14
P15
P16
P17
P50
P51
P52
P53
P54/ED4
P55/ED5
P56/ED6
P57/ED7
POWER RY
POWER IND
A
TO DISPLAY ASSY
(To page 18)
R312 56k
4052 A
4052 B
4052 INH
LINE MUTE
F(1:3)
R305 56k
VOL POSI
VOL DOWN
VOL UP
R345 56k
E/R(TUNER)
E/R(DECK)
E/R(C(L)D)
E/R(GEQ)
S.DATA
S.CLOCK
R311 1k
R318
C(1:15)
IC301 PD51708
R325 56.0k
R326 56.0k
R327 56.0k
R328 56.0k
R329 56.0k
D306
AUDITION
VSEL A
VSEL B
R334 56.0k
P.CONT
GND
NC
GND
L IN
GND
R IN
GND
NC
GND
P8
P9
P10
CN6 AKP1073
TO POWER AMP
Q398.399:
SERIAL DATA
ON/OFF
Q398 2SK373
D399
Q399 RN2203
R399 10k
RMT IN
GND
C306 1000p
R320 47.0k
R341 1.0k
RESET
X IN
X OUT
GND
X301 ASS1025 4MHz
D307 RD6.2ESB
C304 0.047
R321 1M
Q301 RN1203
R327 10 1W
u-com GND
NC
u-com 5.6V
NC
REM IN
STEREO
TUNED
RESET
LOCAL
TX MUTE
9K/10K
FM MONO
PLL CLK
PLL DATA
PLL CE
FL AC 1
S.CLK
S.DATA
TX REQ/EN
NC
NC
NC
NC
NC
POWER ON/OFF
FL BIAS
FL AC 2
CN5 AKP1099
FROM DISPLAY ASS'Y CN4 (To page 18)
HE AND HB TYPES
JP128
SD TYPE ONLY
9K
9k/10k
R324 47.0k
Q113 2SC2458
R342 2.2k
C307 1000p
C305 1/50
Q113:
POWER ON
MUTE
R121 R122 R123 R124
1/4W
PLAYER +12V
DJ101 AKN-203
D112,113,115,116
:RD6.2ESB
Q112:
POWER ON/OFF
RELAY
CONTROL
RY101 (1/3) AKR1036
RY102 (1/3) ASR1032
Q112 2SD438
R117 180 3W
R116 150 3W
R115 560
R118 2.2k
SD TYPE
ONLY
P3 FU3
P2 FU2
P1
SD TYPE ONLY
JP1 FU1
C101 ACG1003 0.01/AC400
HE AND HB
TYPES
AC POWER CORD
ADG1019 (HE TYPE)
AC230V 50/60Hz
ADG1084 (HB TYPE)
AC240V 50/60Hz
ADG1016 (SD TYPE)
AC110/120-127/230/240V
50/60Hz
R109 33
RY102(3/3) ASR1032
R119 1/4W
R120 1/4W
R110 1/4W
C109 47/25
C108 16/50
R102 1M
R101 1.0k
Q101 2SA1306
IC101 NJM7812FA
MOTOR +12V
+12
C111 47/25
C110 16/50
R104 1M
R103 1.0k
Q102 2SA1306
IC102 NJM7812FA
SIG +12V
+21
C113 47/25
C112 16/50
R106 5.6k 1W
R105 1.0k
Q103 2SD438
IC103 NJM7912FA
SIG -12V
-12
-21
C102 0.01
D101 D3SBA20(A)
C104 2200/50
C105 1000/35
C106 330/50
D106
D103
D104
C118 NP 1000/50
C114 16/50
C115 2200/16
R111 1.0k
R112 1.0k
D110
IC104 NJM7805FA
SIG +5V
+5
+13
C103 0.01
D102 RB152
C116 16/50
C117 47/16
D111
R114 1.0k
R113 1.0k
Q108 2SC3377
IC105 NJM7905FA
SIG -5V
-5
-13
Q109:
ATOR
IC101-IC105:
REGULATOR
Q101-Q105,Q107,Q108:
REGULATOR CONTROL
Q106 2SC2458
R125 2.2k
Q107 2SA1048
R126 2.2k
(POWER RELAY)
H:ON
L:OFF
FL AC:5.8V
FUSE
ASS'Y
(AWZ3975)
FU8
CN1
CN101
J1
HE AND HB TYPES
POWER
TRANSFORMER
T1 AT1178
FU4
FU6
FU7
FU5
HE
TYPE
HB
TYPE
230V
0V
240V
FU2,3 : AEK-508 (T1A)
FU6,7 : AEK-510 (T1.6A)
FU8 : AEK-511 (T2A)
FU1 : AEK-512 (T2.5A)
FU4,5 : AEK-515 (T5A)
TO AC OUTLET
P4
P5
P6
P7
IP AC OUTLET
AKP-508 (HE TYPE)
AKP-509 (HB TYPE)
AKP-507 (SD TYPE)

DISPLAY, VOLUME AND MIC ASSY

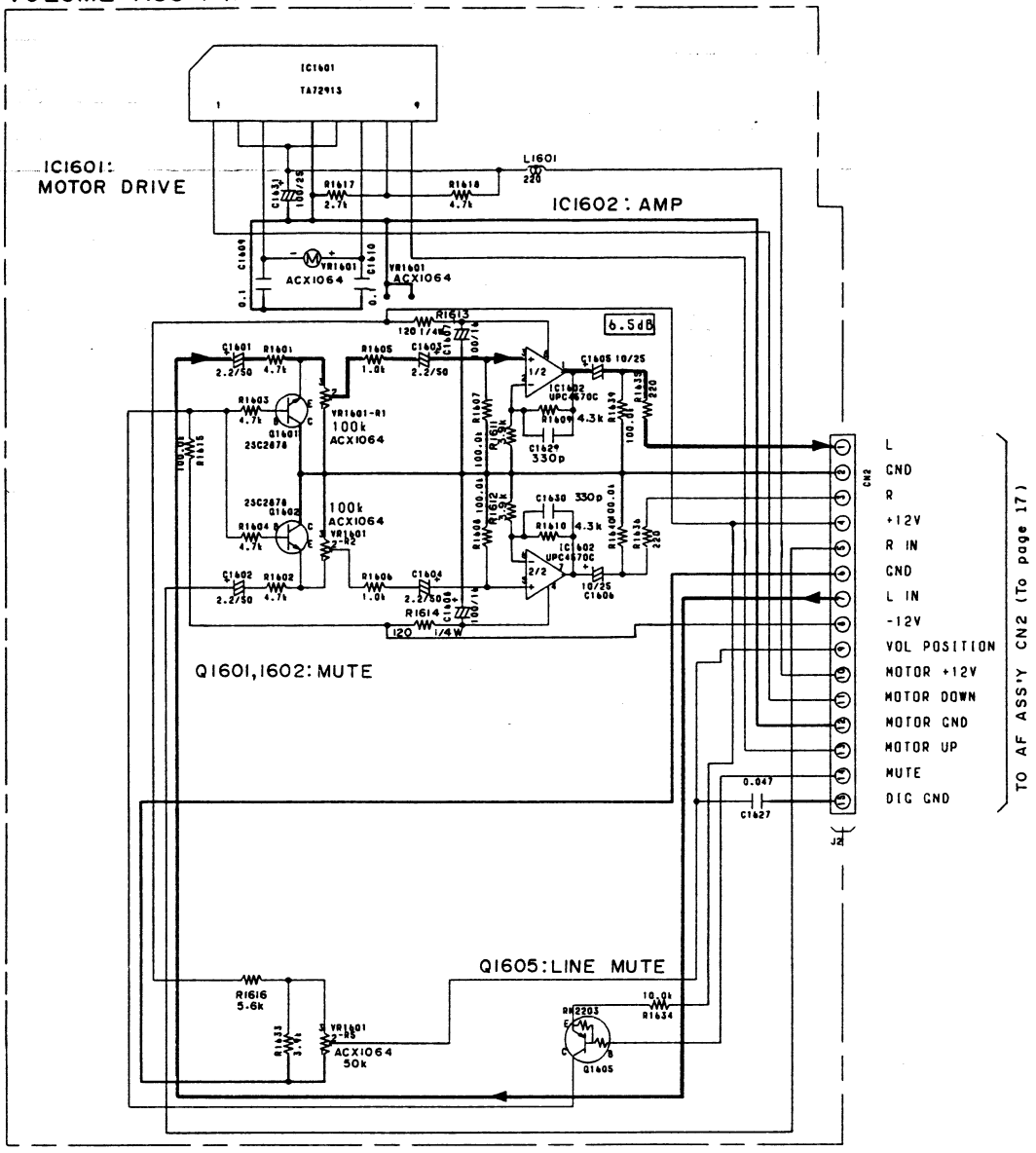
DISPLAY ASS'Y
(AWZ3769 FOR HE AND HB TYPES)
(AWZ4013 FOR SD TYPE)

IC1601 TA7291S

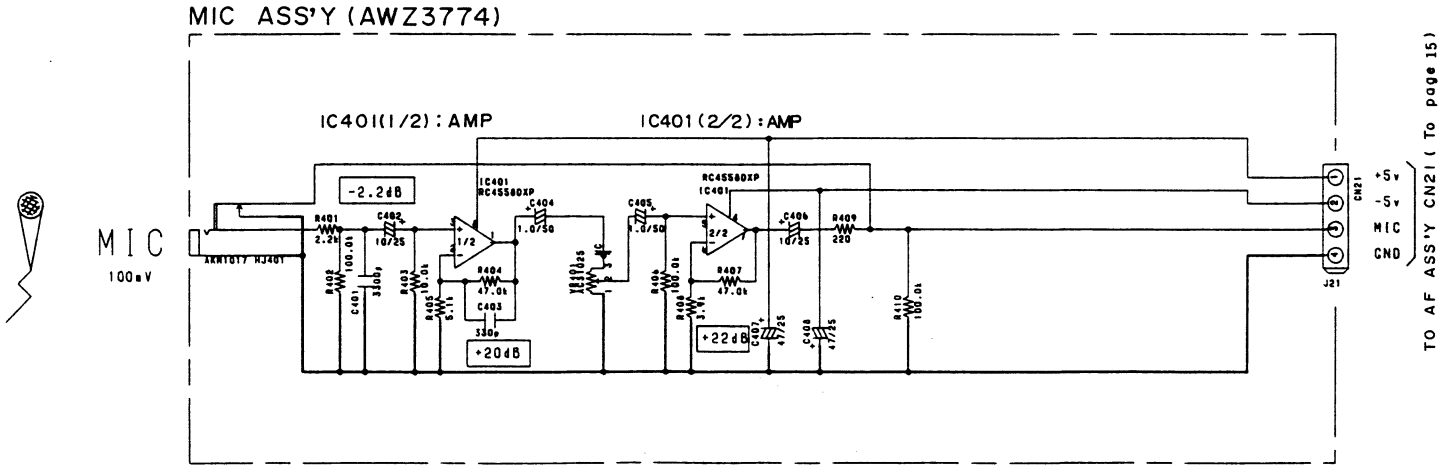




VOLUME ASS'Y (AWZ3771)



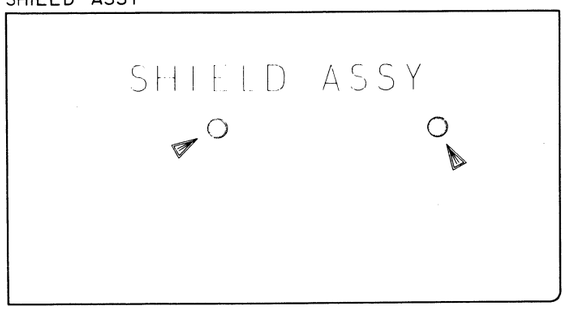
MIC ASS'Y (AWZ3774)



AF ASSY
(AWZ3765 FOR HE AND HB TYPES)
(AWZ3979 FOR SD TYPE)

IP AC OUTLET

SHIELD ASSY



AC POWER CORD

TO GEQ

TO DECK

DAT IN / DAT OUT / VTR IN / VTR OUT / CD/BS IN / (PHONO) IN

PLAYER +12V

SD TYPE ONLY 9K/10K

FU1 T2.5A 250V

SD TYPE Jumper

HE AND HB TYPES

SD TYPE ONLY

FU2 T1A 250V

FU3 T1A 250V

ANP1527-C

FUSE ASSY
(AWZ3975)

FU5 T5A 250V

FU7 T1.6A 250V

FU8 T1.6A 250V

FU6 T5A 250V

FU4 T5A 250V

FUSE ASSY AWZ3975

HE AND HB TYPES

T1
POWER TRANSFORMER

HE TYPE

HB TYPE

3 230V
4 0V
5 240V
14 13 12 11 10 9 8

SD TYPE ONLY

T1
POWER TRANSFORMER

S1
VOLTAGE SELECTOR

220V 240V 110V 120-127V

1 0V
2 0V
3 110V
4 120V
5 0V
6 10V
7 120V
14 13 12 11 10 9 8

Q398
Q399

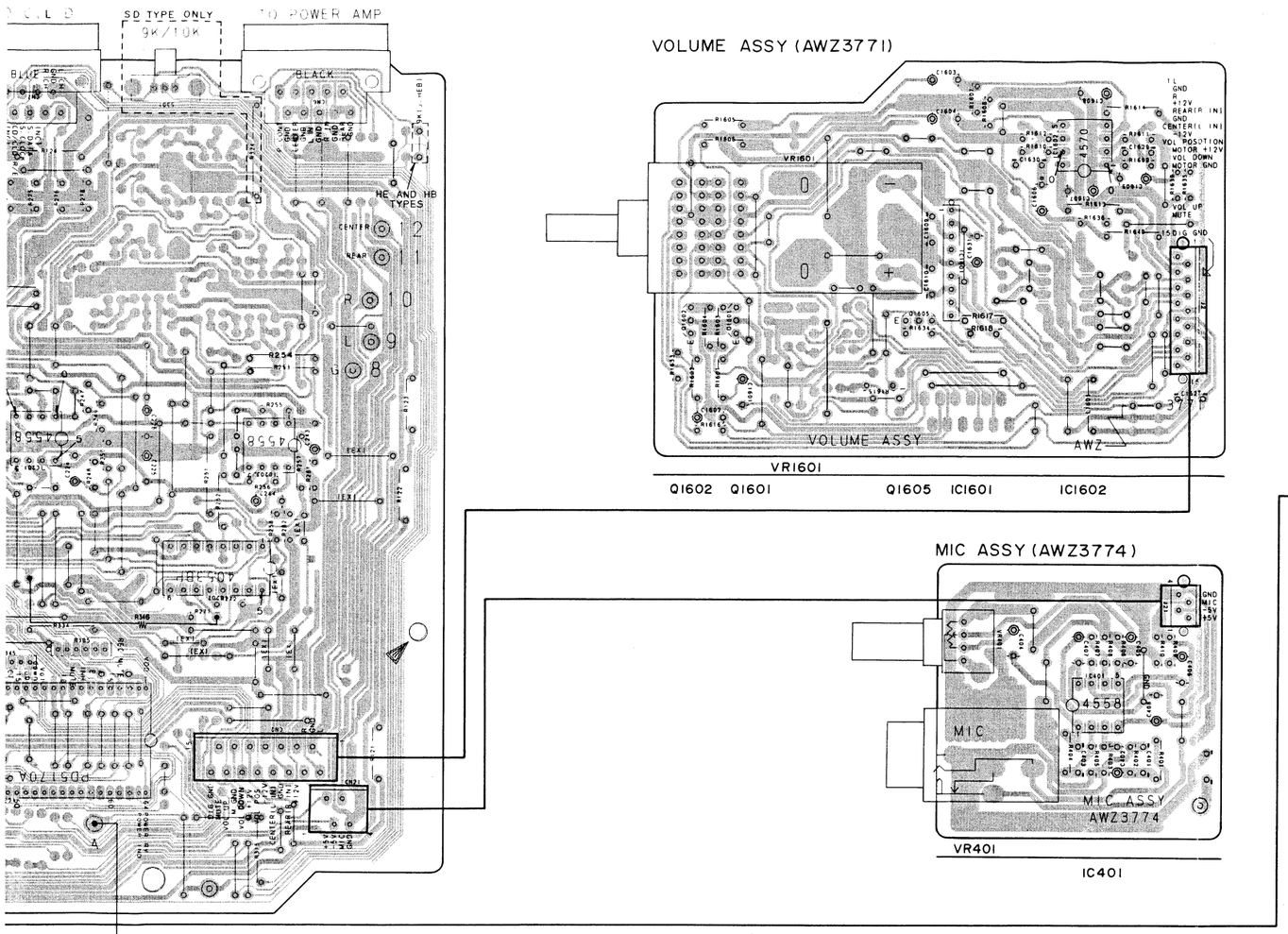
Q112 Q109 Q301 Q113 IC205 Q205 Q105 Q103 Q101 Q202 IC105 Q107 Q204 Q201 IC101 IC103 Q108 Q102 IC102 IC206 Q203 IC204 IC106 Q104 IC104 IC202 IC301 IC201 IC207

Line Voltage Selection (HE and HB TYPES)

Line voltage can be changed with the following steps.

1. Disconnect the AC power cord.
2. Remove the top cover.
3. Change the connection of the power transformer lead wire.
4. Stick the line voltage label on the rear panel.

Part No.	Description	
AXX−193	220V label	----- 220V−230V
AXX−192	240V label	—— 240V



ES)
g steps.

mer lead wire.

0V–230V
0V

NOTE

1. This P.C.B connection diagram is viewed from the parts mounted side.
2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wirng symbols listed in the following Table.

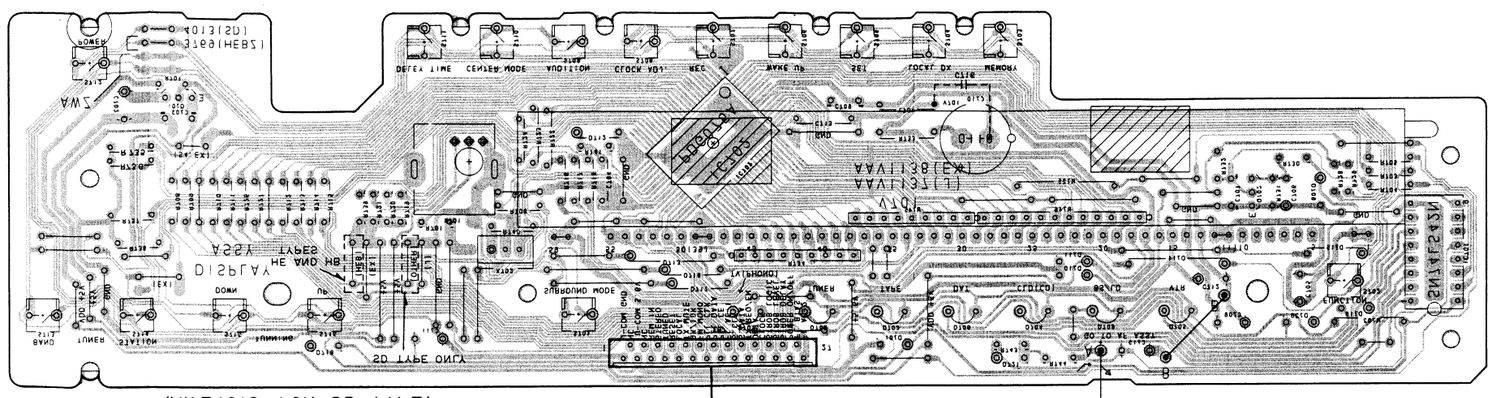
P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
Q504 (E B C)	or	Transistor
Q215	or	Radiator type transistor
D203	D203	Diode
R237	R237	Resistor
C513		Capacitor (Polarity)
C518		Capacitor (Non-polarity)

Others

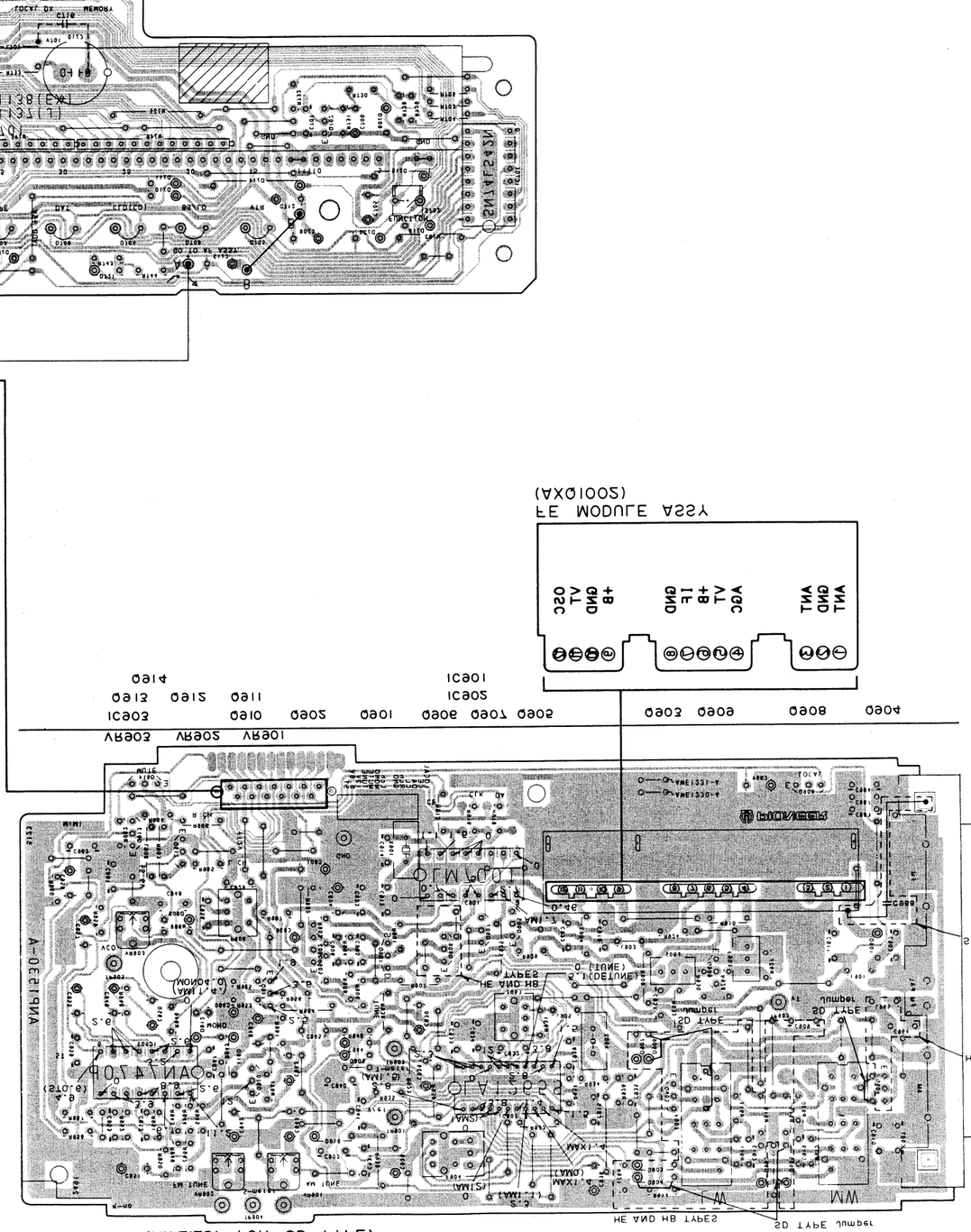
P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

3. The capacitor terminal marked with ◎ (double circles) shows negative terminal.
4. The diode terminal marked with ◎ (double circles) shows cathode side.
5. The transistor terminal to which E is affixed shows the emitter.

DISPLAY ASSY (AWZ3269 FOR HE AND HB TYPES)
(AWZ4013 FOR SD TYPE)

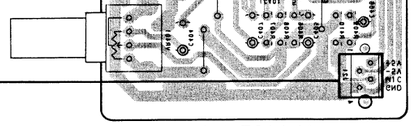


TUNER ASSY (AWE1520 FOR HE AND HB TYPES)
(AWE1521 FOR SD TYPE)

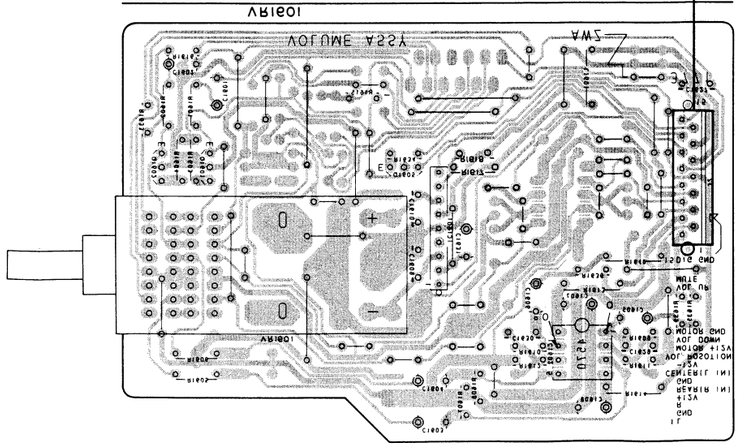


FF MODULE ASSY
(SX0102XA)

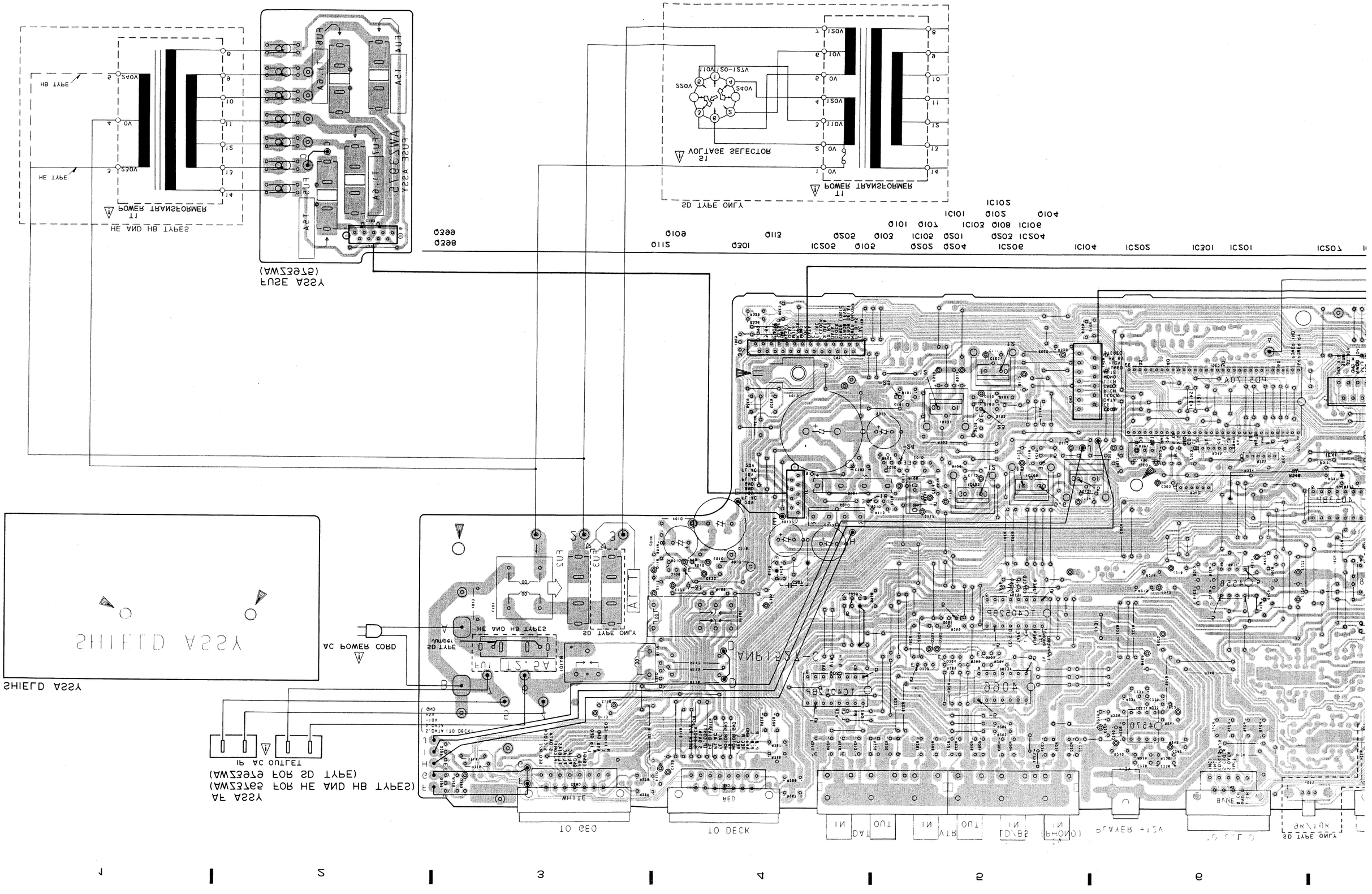
MIC ASSY (AFT2ZWA)



VOLUME ASSY (AWZ2777)



This P.C.B. connection diagram is viewed from the foil side.


FUSE ASSY
(AW12815)
POWER TRANSFORMER
T1
HE AND HB TYPES
HB TYPE
HE TYPE
SD TYPE ONLY
VOLTAGE SELECTOR
S1
AC POWER CORD
SHIELD ASSY
AF ASSY
(AW12816 FOR HE AND HB TYPES)
(AW12817 FOR SD TYPE)
TO DECK
TO CD
DAT
VTR
LD/BS
PHONO
PLAYER
SD TYPE ONLY

6. ADJUSTMENTS

● As to connections and points to be adjusted, refer to Fig. 6-1, Fig. 6-2 and Fig. 6-3.

6.1 AM TUNER ADJUSTMENT

● Set the BAND selector to "AM".

Step No.	Adjustment Title	AM SG(400Hz, 30% modulation)		Reception Frequency Display	Adjustment	
		Frequency(kHz)	Level(dBμV/m)		Adjustment Location	Specifications
1	TUNED indicator sensitivity adjustment	999	55±5	999kHz	VR901	Adjust so that the indicator lights up.

6.2 FM TUNER ADJUSTMENT

● Set the BAND selector to "FM".

● Perform VCO adjustment two minutes or more after turning the power ON.

Note : Stereo modulation : Main 1 kHz L + R ± 68.25 Hz dev.
Pilot 19 kHz ± 6.75 kHz dev .

Step No.	Adjustment Title	FM SG(1kHz±75kHz dev.)		Reception Frequency Display	Adjustment	
		Frequency(MHz)	Level(dBμV)		Adjustment Location	Specifications
1	Detector coil T-meter adjustment	98.0	80	98.0MHz	L907	Adjust so that the DC voltage between TP901 and TP902 is ± 50mV.
2	VCO adjustment	98.0 (No modulation)	80	98.0MHz	VR903	Adjust so that the frequency between TP905 and GND is 76 ± 0.5kHz
3	TUNED indicator sensitivity adjustment	98.0	18 ± 3	98.0MHz	VR902	Adjust so that the indicator lights up.

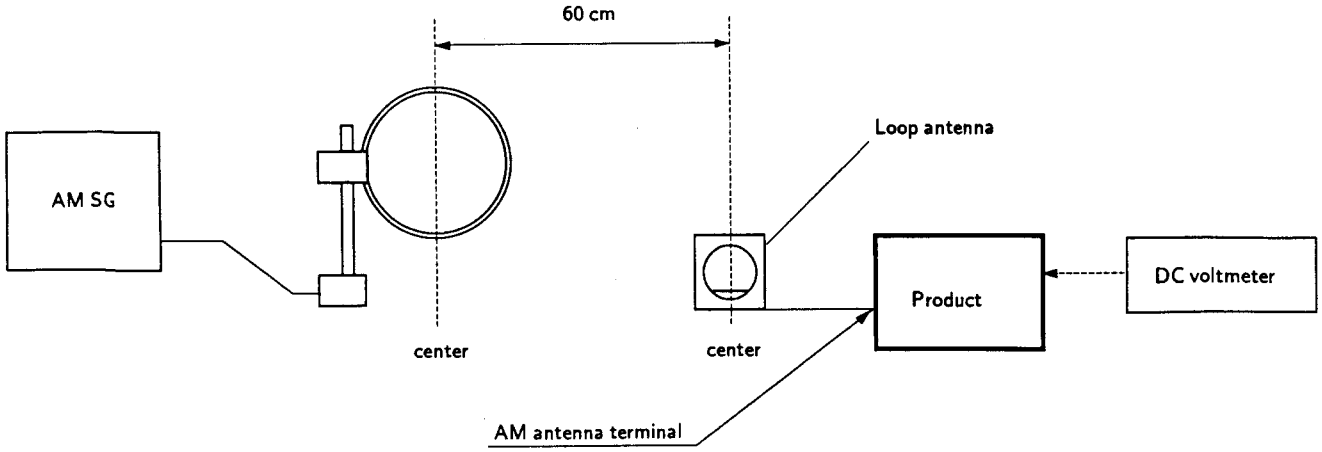


Fig. 6-1 AM Adjustment Connection Diagram

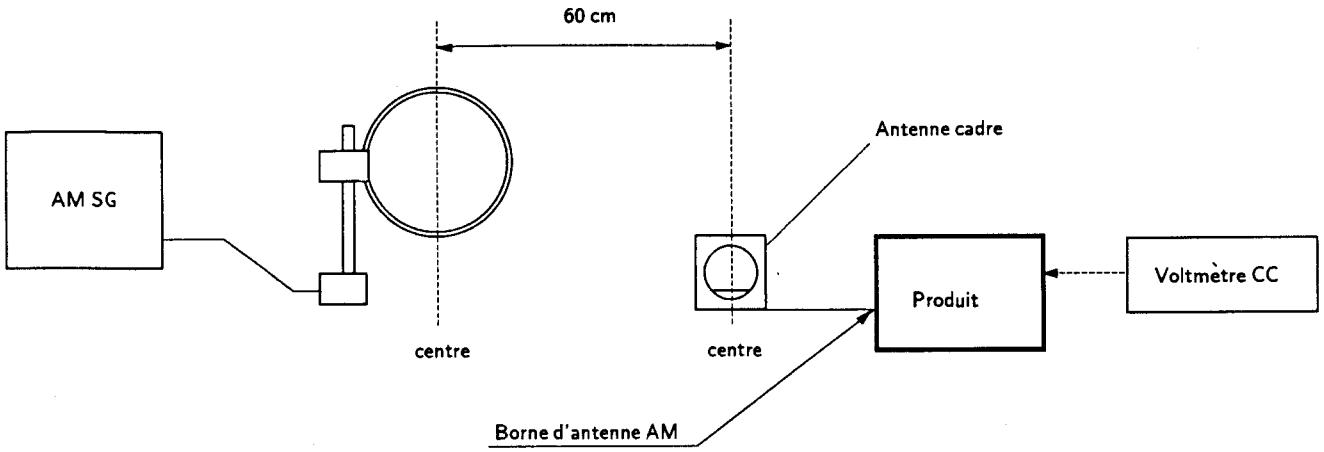


Fig. 6-1 Schéma de raccordement de réglage AM

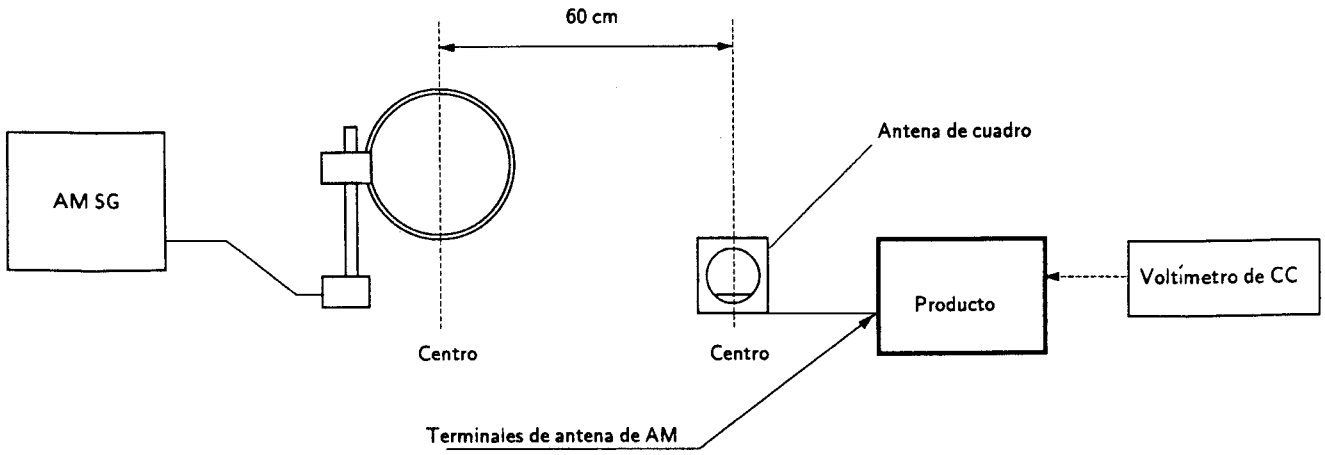


Fig. 6-1 Diagrama de conexiones para el ajuste de AM

6. AJUSTE

● Pala las conexiones y puntos de ajuste, refiérase a la Fig. 6-1, Fig. 6-2 y Fig. 6-3.

6.1 AJUSTE DE LA SECCION DEL SINTONIZADOR DE AM

● Ajuste el selector BAND a la posición "AM".

N°. de paso	Items de ajuste	AM SG(400Hz, 30% modulation)		Frecuencimetro de reseptión	Ajuste	
		Frequencia(kHz)	Nivel(dBμV/m)		Lugar de ajuste	Especificaciones
1	Nivel de iluminación de TUNED	999	55±5	999kHz	VR901	Ajústelo de forma que los indicadores de TUNED comiencen a encenderase.

6.2 AJUSTE DE LA SECCION DEL SINTONIZADOR DE FM

● Ajuste el selector BAND a la posición "FM".

● Realice el ajuste VCO dos minutos o mas despues de conectar la alimentacion.

Nota : Modulacion estereo : Principal : 1 kHz L + R ± 68,25 Hz dev.

Pilote 19 kHz ± 6,75 kHz dev.

N°. de paso	Items de ajuste	FM SG(1kHz±75kHz dev.)		Frecuencimetro de recepticón	Ajuste	
		Frequencia(MHz)	Nivel(dBμV)		Luger de ajuste	Especificaciones
1	Ajuste del medidor T de la bobina detectora	98,0	80	98,0MHz	L907	Ajuste de manera que la tensión de CC entre TP901 y TP902 sea de ± 50mV.
2	Ajuste VCO	98,0 (Sin modulación)	80	98,0MHz	VR903	Ajuste de manera que la frequencia entre TP905 y GND sea de 76 ± 0,5kHz
3	Nivel de iluminación de TUNED	98,0	18 ± 3	98,0MHz	VR902	Ajústelo de forma que los indicadores de TUNED comiencen a encenderase.

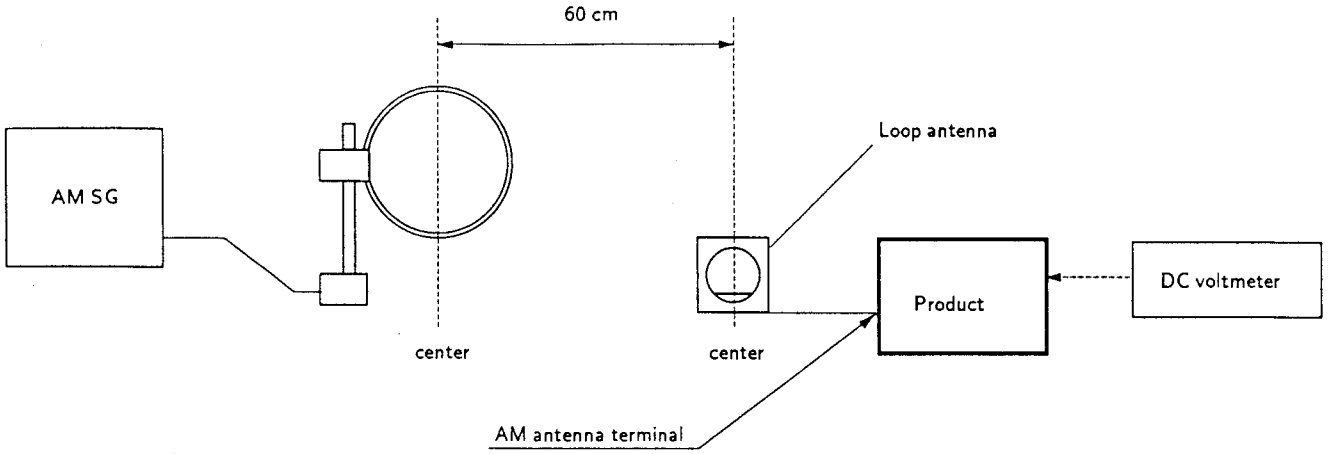


Fig. 6-1 AM Adjustment Connection Diagram

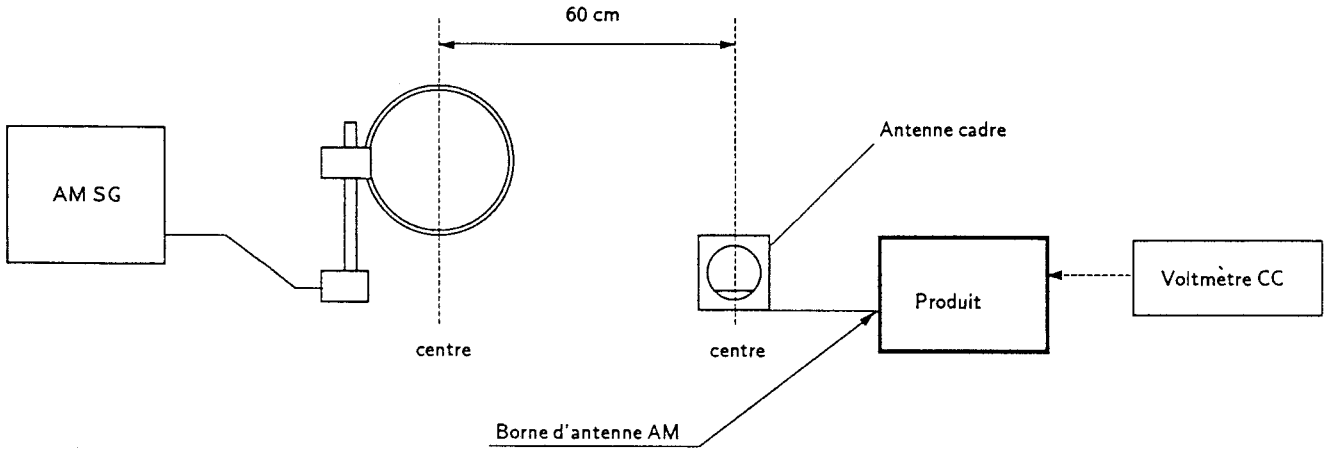


Fig. 6-1 Schéma de raccordement de réglage AM

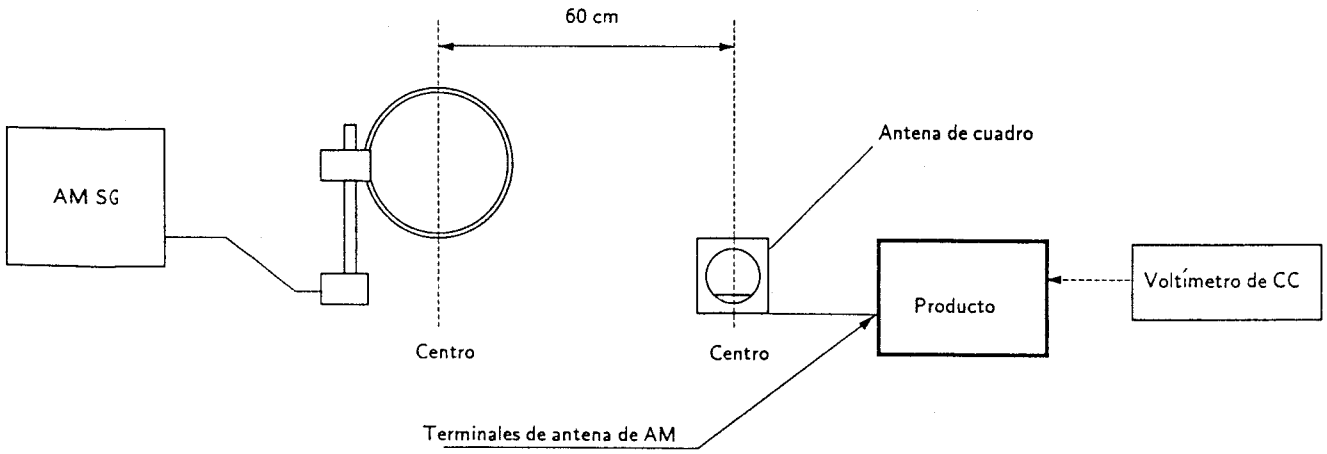


Fig. 6-1 Diagrama de conexiones para el ajuste de AM

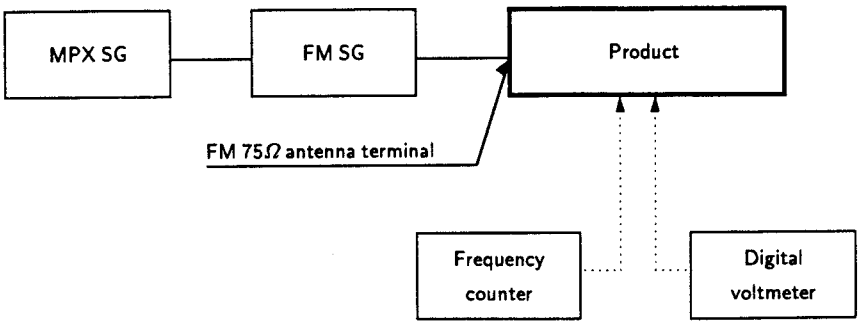


Fig. 6-2 FM Adjustment Connection Diagram

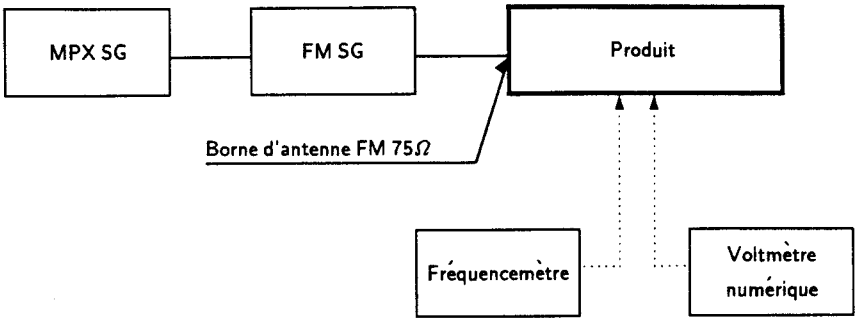


Fig. 6-2 Schéma de connexion de réglage FM

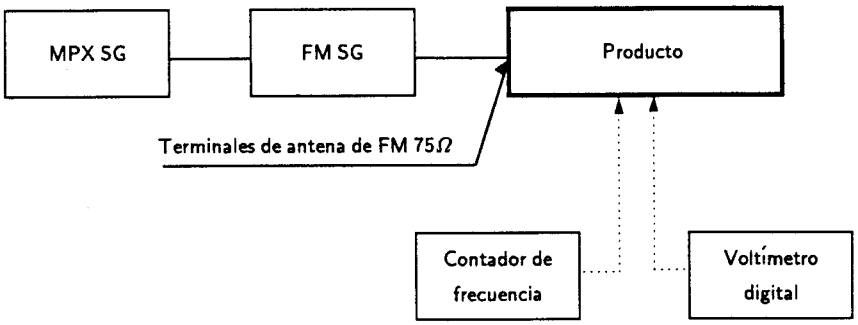


Fig. 6-2 Diagrama de conexiones para el ajuste de FM

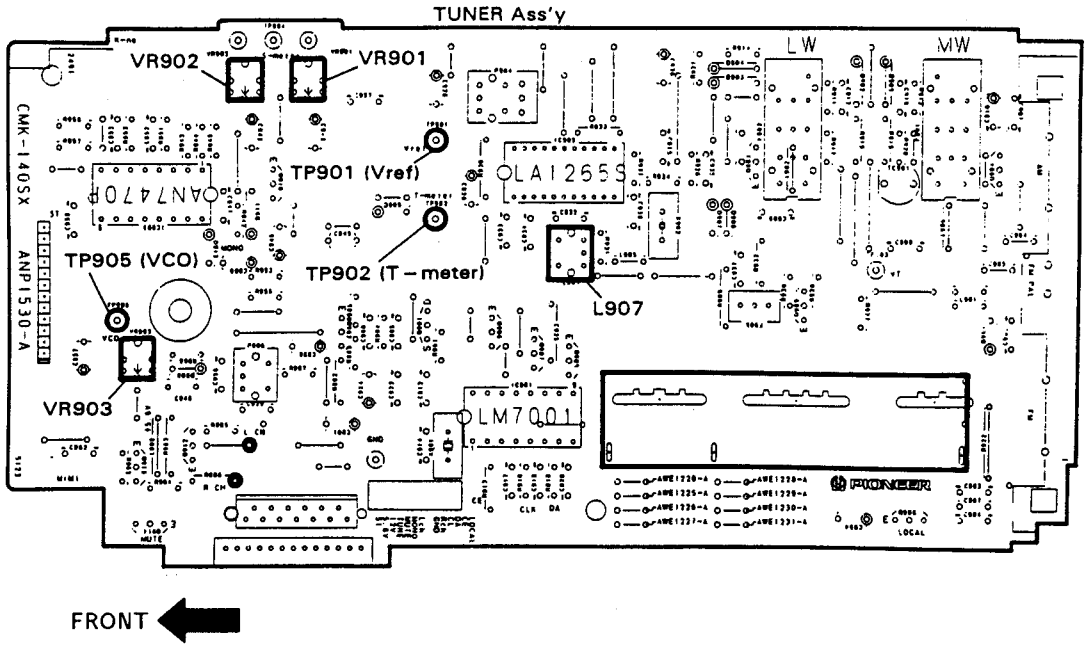


Fig. 6-3 Adjustment Points
Fig. 6-3 Emplacements de réglage
Fig. 6-3 Puntos de ajuste

7. FOR HB AND SD TYPES

NOTES :

- *Parts without part number cannot be supplied.*
- *Parts marked by "◉" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*

CONTRAST OF MISCELLANEOUS PARTS

CX−J500/HB, SD and CX−J500/HE have the same construction except for the following :

Mark	Symbol & Description	Part No.			Remarks
		CX-J500/ HE type	CX-J500/ HB type	CX-J500/ SD type	
◉	AF assembly	AWZ3765	AWZ3765	AWZ3979	
◉	DISPLAY assembly	AWZ3769	AWZ3769	AWZ4013	
	TUNER assembly	AWE1230	AWE1230	AWE1231	
⚠	AC power cord	ADG1019	ADG1084	ADG1016	
⚠	FUSE (FU3 T1A/250V)	.....	.....	AEK−508	No. 38 (*)
⚠	FUSE (FU1 T2.5A/250V)	AEK−512	AEK−512	.....	No. 44 (*)
⚠	AC outlet 1P	AKP−508	AKP−509	AKP−507	
⚠	Line Voltage Selector (S1) (AC110/120−127/220/240V)	.....	.....	AKX−507	
⚠	Power transformer (T1)	ATT1178	ATT1178	ATT1179	

* : Refer to page 2.

AF ASSEMBLIES

AWZ3979 and AWZ3765 have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ3765	AWZ3979	
	S301	.....	ASH1027	
	R324	.....	RD1/8PM473J	

DISPLAY ASSEMBLIES

AWZ4013 and AWZ3769 are different in part number, but they have the same service parts.

TUNER ASSEMBLIES

AWE1231 and AWE1230 have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWE1230	AWE1231	
	Q903, 904	RN1203	.....	
	Q906	RN2201	.....	
	D902, 905−907	HSS104−02	.....	
	D903, 904	1SS85	.....	
	C909	CKDYF103Z50	.....	
	C913	CKDYF223Z50	.....	
	C961, 962	CKDYB272K50	CKDYB562K50	
	C964	CKPUYB101K50	.....	
	C965	CKPUYB102K50	.....	
	C968	.....	CCDSL101J50	
	R911	RD1/8PM104J	.....	
	R914, 915, 919	RD1/8PM681J	.....	
	R917	RD1/8PM102J	.....	
	R921	RD1/8PM392J	.....	
	ANTENNA TERMINAL (4P)	.....	AKA1009	
	ANTENNA TERMINAL (PAL 4P)	AKA1010	.....	
	AM RF TUNING BLOCK (MW)	AXX1012	AXX1011	
	AM RF TUNING BLOCK (LW)	AXX1013	.....	